Don't Miss 'How to Order Scientifically' on Page 17

Purchasing Week

McGRAW-HILL'S NATIONAL NEWSPAPER OF PURCHASING

Washington Perspective Purchasing Week Asks..... 11 New Products Foreign Perspective

Vol. 4, No. 3

New York, N. Y., January 16, 1961

\$6 A YEAR U.S. \$25 A YEAR FOREIGN

Washington Sleuths' Latest Villain: 'Fixed'

New Attack Hits Embattled Steel At SAE Exhibit

Detroit—As if steel didn't have enough headaches already its competitors were busy cooking up a potent new brew of troubles at the International Congress & Exposition of the Society of Automotive Engineers.

Booths lining the vast show area of Cobo Hall last week carried these messages to automotive P.A.'s and engineers:

· Competing materials tics, aluminum, magnesium, fi-berglass, etc.—have weight and wear characteristics that make them more economical than steel.

• Steel is expensive to chew up; nonferrous metals and plas-tics are easier to handle.

Visitors to the Alcoa stand, for example, were told that the next five years will see aluminum (Turn to page 34, column 4)

February Start Seen For AMA Purchasing Group

New York - The American Management Assn.'s anticipated announcement of a new division for purchasing men is expected to be made early next month, PURCHASING WEEK learned last week.

Creation of the purchasing division will be further evidence of management's recognition of the importance of the purchasing function.

The division is expected to be headed by a director, who will have charge of education programs, seminars, and workshops. Behind him will be an advisory board of top purchasing man-(Turn to page 33, column 2)

HOW TO SPOT 'FIXED' PRICES

Justice Dept. Detectives Say These Clues Top Their List:

Identical Prices:

Look suspicious in the absence of price leadership, or quality, availability, and service differences.

Same Winner: May signal that you are the "exclusive property" of a supplier who always puts in the low bid.

Polite Waltz: "Taking turns" getting your business may indicate suppliers are following a preset rotation.

Crumb-Picking:

Chase for tiny orders by littleknown suppliers may tip off a combine which excludes them.

Absenteeism: Sudden disinterest by one of your suppliers could mean he traded you off for another customer.

Doublecrossing:

Offer of "confidential" discounts may show rift in an arrangement you didn't know about.

Revulsion:

Failure of a major supplier to bid might result from his distaste of getting mixed up in rigging:

Zinc, Copper, Stainless Changes Keep Price Pot Boiling for P. A.'s

continues to seethe.

As PURCHASING WEEK pointed out last week, suppliers are zigging and zagging in quick succession in an attempt to adjust to short-term changes in supply and demand of the materials they use.

Here are some of the more

New York-The price pot significant prices changes of the past week:

• Zinc. Quotations settled at 11½ ¢/lb. (East St. Louis) for prime zinc, with usual premiums for other grades. Zinc products followed the downward trek, followed with zinc dust cut ½ ¢/lb.
• Copper—The current smelter

price dipped 1¢/lb., with producers still trying to retain the 30¢/

lb. quotation.

DuPont an- Polyethylene. nounced it would raise the price its conventional, low-density (Turn to page 33, column 1)

How to Order Scientifically. That's an age-old problem for P.A.'s, but now, for the first time, you'll be able to do it simply by running your finger down a column of figures like a railroad timetable. Turn to page 17 for details.

PANORAMA

- Know Your Supplier Is Good Advice, and the Kleinschmidt Div. of Smith-Corona takes it seriously. In fact, before a salesman even calls, Kleinschmidt learns all about his com-
- What's Coming Up in Congress? Antitrust action will be one of the main issues (see columns 4 and 5 above), but there also will be plenty of other activity that will affect purchasing agents. For a rundown, see page 4.

pany and product. The story on page 16 tells how it's done.

 How to Win an Argument is the topic of discussion in this week's session of 'School for Strategists.' The games on page 28 will give you a hint on what line of action you might take if you ever get embroiled in a dispute with Production.

Air Cargo Rates

New York - Seaboard & Western Airlines, Inc., said it will propose reductions of up to 70% in general transatlantic cargo freight rates at the Inter-national Air Transport Assn. meeting in Paris, Jan. 23.

Acquisition of CL-44 air freighters with higher capacities and hinged, swing tails for faster loading enables Sea-board to make the proposal, which has to be approved by the association.

Government's Own P.A.'s Become Key Source Of Information on Rigging of Bids and Collusion

Philadelphia-Who tipped off the Justice Dept. that it could make legal hay against a score of big electrical companies a couple of weeks ago? How can buyers—and the government— recognize the possibility of fixed prices to begin with?

PURCHASING WEEK'S Phila-delphia reporter, John Moore, sat down last week for an exclu-sive talk with a group of ranking Justice Dept. attorneys to discuss the topics above. This is what

"A P.A. in one of the big federal electrical outfits triggered off the case against the electrical manufacturers. He didn't know it at the time, but we matched his query with others -both public and private—that had been coming in. All had this common note: 'We need help and relief.' So that

got the case rolling.

"Actually, we would have acted much sooner if a lot of other purchasers had been on their toes—or less timid about disturbing old buyer-seller rela-Understandably, the private business is tionships. in rather slow to act. But state, federal, and local P.A.'s don't worry so much about tradition. Their boss is the public. So they can be more forthright. That's a point to bear in mind: The government is such a big buyer of everything today that there's a sort of built-in checkup on pricing practices. "Curiously, the P.A.'s who re-

(Turn to page 34, column 2)

This Week's

Washington-Lawmen in the Justice Dept. and Congress formally are going to put on new hats and start a flashy roundup of price-fixers. You can see this foray shaping up in the following

preparations:
(1) Sen. Kefauver's Subcommittee on Antitrust & Monopoly Legislation is sending to government printers a massive compila-tion of bids submitted to the De-fense Dept. during an 18-month period. (It's part of a study of identical bidding among suppliers to government agencies)

to government agencies.)
(2) There's a sizable inheritance of unfinished business from the prior Administration await-ing further processing. In fact, in the past 12 months the Justice Dept. already has piled up this impressive list of suits on the price front (some have been dis-posed of by this time; but the complete scope is worth noting): electrical manufacturing equipment; drafting furniture; culverts; drugs; hypodermic syringes; soft drinks; cement and ready-mix concrete; metal office furniture; and fabricated steel.

Two variations on the same basic theme show up in the charges: (1) rigging bids, or (2) conspiring to fix prices and divvy up customers and territories.

The Kefauver report on bids submitted to the Defense Dept. won't draw any conclusions, but will provide a starting point for further investigations by Kefauv-

(Turn to page 34, column 1)

Purchasing Perspective

JAN. 16-22

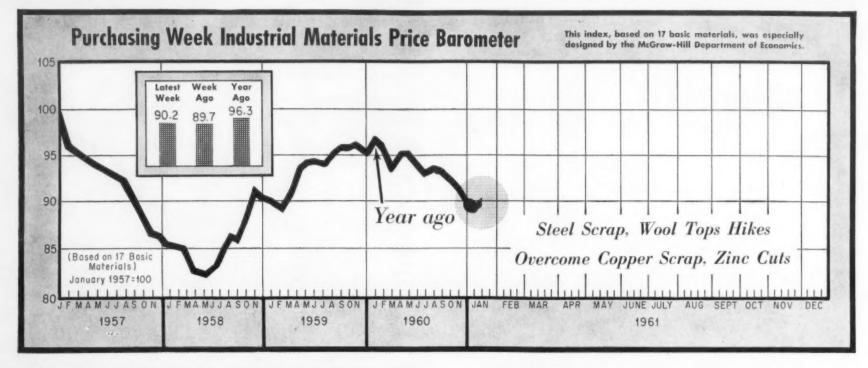
n 1958 the then near-bankrupt Studebaker-Packard Corp. asked its purchasing department to inaugurate a crash buying

program that played a key role in the highly successful sales debut of the new Lark compact. Now, only two years later, the automaker is seeking further rejuvenation and this time has asked a procurement-production specialist to step into the driver's seat for a try at improving the firm's profit record.

And Sherwood H. Egbert, a 40-year-old former purchasing agent whose belief in pur-

chasing as a corporate profit-builder helped him advance to the executive vice presidency of a West Coast motor manufacturer, may be just the man to do it.

Egbert, who takes over as Studebaker's president and chief executive officer on Feb. 1, made his mark at the McCulloch Corp. where he began as purchasing agent and assistant produc-(Turn to page 33, column 4)



| This Week's Commodity P | rices |
|-------------------------|-------|

| | Jan. 11 | Jan. 4 | Year | % Yrly |
|---|--|--|---|--|
| METALS | Jun. 11 | Juli. 7 | - | Change |
| Pig iron, Bessemer Pitts., gross ton. Pig iron, basic, valley, gross ton. Steel, billets, Pitts., net ton. Steel, structural shapes, Pitts., cwt. Steel, structural shapes, Los Angeles, cwt. Steel, bars, del., Phila., cwt. Steel, bars, Pitts., cwt. Steel, plates, Chicago, cwt. Steel, plates, Chicago, cwt. Steel scrap, #1 heavy, del. Pitts., gross ton. Steel scrap, #1 heavy, del. Cleve., gross ton. | 67.00 66.00 80.00 5.50 6.20 5.97 5.675 5.30 30.00 29.00 | 67.00 66.00 80.00 5.50 6.20 5.97 5.675 5.30 30.00 26.00 | 67.00 66.00 80.00 5.50 6.20 5.975 5.675 5.30 43.00 41.00 | 0 0 0 0 0 0 1 0 0 3 0.2 2 9.3 |
| Steel scrap, #1 heavy, del. Chicago, gross ton | 30.00 .26 .23 .295 .225 | 28.00 .26 .23 .296 .23 | 40.00 .26 .25 .335 .26 | $ \begin{array}{r} -25.0 \\ 0 \\ -8.0 \\ -11.9 \\ -13.5 \end{array} $ |
| Lead, common, N.Y., lb. Nickel, electrolytic, producers, lb. Tin, Straits, N.Y., lb. Zinc, Prime West, East St. Louis, lb. | .11 .74 1.001 .115 | .11 .74 1.005 .12 | .12 .74 .995 .13 | $ \begin{array}{r} -8.3 \\ 0 \\ + .6 \\ -11.5 \end{array} $ |
| FUELS† Fuel oil #6 or Bunker C, Gulf, bbl. Fuel oil #6 or Bunker C, N.Y., barge, bbl. Heavy fuel, PS 400, Los Angeles, rack. bbl. Lp-Gas, Propane, Okla., tank cars, gal. | 2.30 2.62 2.05 .045 | 2.30 2.62 2.05 .045 | 2.00 2.37 2.15 .05 | +15.0 +10.5 - 4.7 -10.0 |
| Gasoline, 92 oct. reg., Chicago, tank car, gal | .126 .105 .095 .098 | .126 .105 .095 .098 | .114 .11 .095 .096 | - 4.5 0 |
| CHEMICALS Ammonia, anhydros, refrigeration, tanks, ton. Benzene, petroleum, tanks, Houston, gal Caustic soda, 76% solid, drums, carlots, cwt. Coconut oil, inedible, crude, tanks, N.Y. lb Glycerine, synthetic, tanks, lb | 94.50 .34 4.80 .133 .273 | 94.50 .34 4.80 .134 .273 | 90.50 .34 4.80 .198 .293 | $\begin{array}{c} + 4.4 \\ 0 \\ 0 \\ -32.8 \\ - 6.8 \end{array}$ |
| Linseed oil, raw, in drums, carlots, lb | .162 .195 .275 17.50 .31 | .162 .185 .275 17.50 .31 | .176 .165 .325 13.10 .31 | $ \begin{array}{r} -8.0 \\ +18.2 \\ -15.4 \\ +33.6 \\ \hline \end{array} $ |
| Soda ash, 58%, light, carlots, cwt. Sulfur, crude, bulk, long ton. Sulfuric acid, 66° commercial, tanks, ton. Tallow, inedible, fancy, tank cars, N.Y. lb. Titanium dioxide, anatase, reg. carlots, lb. | 1.55 23.50 22.35 .061 .255 | 1.55 23.50 22.35 .061 .255 | 1.55 23.50 22.35 .059 .255 | 0 0 0 + 3.4 |
| PAPER Book paper, A grade, Eng. finish, Untrimmed, carlots, cwt. | 17.75 | 17.75 | 17.20 | + 3.2 |
| Bond paper, #1 sulfite, water marked, 20 lb, carton lots, cwt. Chipboard, del. N.Y., carlots, ton. Wrapping paper, std. Kraft, basis wt. 50 lb rolls. Gummed sealing tape, #2, 60 lb basis, 600 ft. bundle. Old corrugated boxes, dealers, Chicago, ton. | 25.20 100.00 9.50 6.60 13.00 | 25.20 100.00 9.50 6.60 13.00 | 25.20 100.00 9.25 6.30 19.00 | $0 \\ + 2.7 \\ + 4.8 \\ -31.6$ |
| BUILDING MATERIALS‡ Cement, Portland, bulk carlots, fob New Orleans, bbl Cement, Portland, bulk carlots, fob N.Y., bbl Southern pine, 2x4, s4s, trucklots, fob N.Y., mftbm Douglas fir, 2x4, s4s, carlots, fob Chicago, mftbm Spruce, 2x4, s4s, carlots, fob Toronto, mftbm Fir plywood, ¼" AD, 4x8, dealer, crld, fob mill, msf | 3.65 4.20 116.00 127.00 82.00 68.00 | 3.65 4.20 116.00 129.00 82.00 68.00 | 3.65 4.18 126.00 139.00 95.00 72.00 | + .5 - 7.9 - 8.6 - 13.7 - 5.6 |
| TEXTILES Burlap, 10 oz. 40°, N.Y., yd. Cotton middling, 1", N.Y., lb. Printcloth, 39", 80x80, N.Y., spot, yd. Rayon twill, 40½", 92x62, N.Y., yd. Wool tops, N.Y., lb. | .147 .323 .175 .215 1.497 | .146 .323 .175 .215 1.455 | .106 .331 .229 .235 1.59 | +38.7 -2.4 -23.6 |
| HIDES AND RUBBER Hides, cow, light native, packers, Chicago, lb Rubber, #1 std ribbed smoked sheets, N.Y., lb † Source: Petroleum Week ‡ Source: Engineering News-l | .165 .295 Record | .16 .296 | .215 .415 | -23.3 |

This Week's

Price Perspective

JANUARY 16-22

NEW VILLAIN—Declining consumer hard goods demand may well be replacing inventory paring as the number one factor behind the current sluggish pace of incoming raw material orders.

Look at autos, for instance. Right now Detroit is buying much less steel, glass, textiles, and other materials than last year—in line with new reduced production schedules.

And the situation could get even worse in coming months. For some estimates on 1961 car production now go as low as 5.5-million units—compared to the 6.2-million to 6.3-million forecast made by the industry last October. This low estimate for 1961 is also made by McGraw-Hill's Department of Economics, which bases its pessimism on the fact present dealer inventories (over 1-million cars) virtually assure further cutbacks.

But the decline in consumer durables covers more than just cars. A look at over-all December retail hard goods store sales reveals a sharp 6% fall below the previous month's level. Equally significant, it marks the second straight month of decline.

THE BIG PROBLEM is how to make consumers step up their purchases of cars and other "big ticket" items.

To be sure, recent consumer surveys (see page 13) reveal some improvement in buying intentions over mid-1960 lows.

But intentions are a far cry from actual purchases.

With today's concern over recession and unemployment, it's going to take something dramatic to make consumers part with their money.

That big something could be a tax cut. That's why the new Administration is toying with the idea of a 3%-4% reduction in personal income taxes. This could add \$15-\$20 a month to the average consumer's spending money. Some experts think such a "take home pay" increase would provide the needed sales stimulant among "lower income" classes.

LIMITED RECOVERY—Most steel scrap experts remain skeptical about any spectacular price recovery—despite reports of \$3-\$4 ton scattered increases. First, they point out that much of the increase is spotty.

More important, there's still no sign that steel will go much over 50% of capacity rate in the coming months. That should serve to keep any domestic demand upturn to very modest proportions over that period.

Metal expert, Samuel Lipkowitz, speaking at the Scrap Iron and Steel Institute's Annual Convention at Miami last week, summed up the outlook this way: "If in 1961, steel activity approximates the 1960 yearly total of 100-million tons, scrap prices may average slightly higher than in 1960, or perhaps \$35 per ton."

But he discounts the possibility of a \$40 price, because such a high quote would be "a powerful incentive" to substitute increasing amounts of pig iron for scrap in furnace operations.

PERSONAL SHOPPING NOTES—Disappointing retail sales of the last few months are making for some snappy January-February clearances.

Biggest buys are reported in appliances, clothing, shoes, linens and luggage—as stores begin clearing shelves for spring selling season.

Lower retailer costs could be another factor in this year's bargain prices. Joel Goldblatt, president of a 23-store department store chain, confirms this in noting that a retailer today can "pick up and choose from more manufacturers than before and in the process he is going to be able to ask for and get price concessions."

REA Develops Piggyback System To Speed Small Volume Shipments

developed a new system that ties piggybacking to fast passenger train schedules.

The new plan allows suppliers to use express passenger train service for small volume shipments that would otherwise have to go by slow freight train. The REA system is made possible by the use of a newly developed container that can be loaded from the side or end and unloaded by one man faster than mail. Twenty containers fit on a standard 85-ft flat car.

In a pilot test last week, a crack Pennsylvania passenger train towed a flat car loaded with of the new containers in a 21-hour run from St. Louis to

Plans Regular Operation

Later this month, the Pennsy will inaugurate regularly sched-uled express piggyback opera-tions between New York and St. Louis, using the new containers.

The test used containers manufactured by Fruehauf and a leased factured by Fruehauf and a leased flatbed car made by General American Transportation. The magnesium container has a 2-ton capacity and cube volume of 211.64 cu. ft. piano-type hinge double swing doors provide a 41

x 83 in. opening.

REA also plans to operate a companion system using 5 ft. x 8 ft. x 8 ft. steel containers made by Trailmobile on a compatible Pullman-Standard piggyback car when the service is put into operation. The steel containers will number 16 to a car, compared to 20 for the magnesium units, which are about 1,500 lb. lighter. The Trailmobile containers have

a payload of 4,500 lb.

The use of standard piggyback flat cars provides for mixed container combinations with 20 ft. or 40 ft. highway trailers.

The trip last week brought no additional rates for use of the new service. However, an REA

J&L and Wheeling Steel Bow In With 'Thin Tin' For Container Market

Pittsburgh-Jones & Laughlin Steel Corp. announced it had begun production of new light-weight tin-plate, and Wheeling Steel said it would begin commercial output in March or April. Trial lots of Wheeling's "thin tin" already are going out to custom-

The tin-plate, in both coil and The tin-plate, in both coil and sheet, will be available commercially in base weights of 55 lb. at \$6.40 per base box and 60 lb. at \$6.55 (f.o.b.) Yorkville, Ohio, where the product will be rolled. The steel companies have been turning to "thin tin" in a counterattack against the inroads being made by aluminum in the con-

made by aluminum in the con-

tainer field.
U. S. Steel Corp. began selling the first lightweight tin-plates last fall, and Granite City Steel Co. plans to begin production next

spring.
U. S. Steel produces a tin-plate in base weight of 45 lb. per base box. By contrast, conventional tin-plate averages around 90 lb. per box, rarely coming in weights less than 75 lb.

New York—REA Express has spokesman said the new system veloped a new system that ties could bring lower tariffs through savings in handling, but that this would depend on the volume de-veloped. Big problem is supply-ing special hydraulic trucks to

unloading points along the way.

The new REA system also makes it possible for shippers to load the small modular sized containers with goods and then have REA move the entire sealed unit through intact to a desired destination.



PIGGYBACK COMPONENT: Small holding two tons, stacking into a



NEW RAIL SILHOUETTE: Here 20 of the modular car units are put regether to travel on one standard piggyback flat bed as part express passenger trains. Hydraulic truck does the unloading of units.

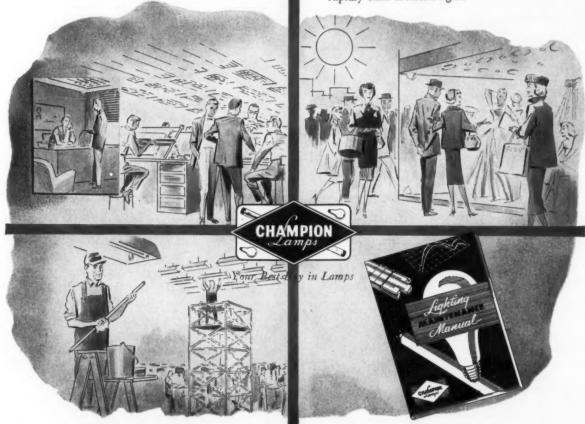
Facts of Light!

LARGE ROOMS USE LIGHT MORE **EFFICIENTLY THAN SMALL ROOMS**

The greater part walls play in a room, the more loss there will be before light reaches the ultimate working level. Also, the higher fixtures are, the greater will be the percentage of wall surface available to absorb light.

FADING CAUSED BY ARTIFICIAL LIGHT DEPENDS ON THE INTENSITY OF LIGHT

There is essentially no difference between incandescent and fluorescent light in causing fading of colored materials — it is the intensity of light that determines the effect. Open sunlight will fade materials much more rapidly than artificial light.



A LITTLE SOAP AND WATER CAN STOP THE LOSS OF HALF YOUR LIGHT

Dust and dirt allowed to accumulate on lamps and fixtures can reduce the light they produce by nearly 50%. The owning and operating cost remains constant. By knowing how fast light is depreciating, it is easy to figure amortization and power waste and establish a cleaning program that gives you maximum lighting economy.

MANY COST-SAVING HINTS IN THE **CHAMPION LIGHTING MAINTENANCE MANUAL**

This manual explains the principles and advantages of good lighting practice in 48 pages. Included are sections on group replacement of lamps, cleaning programs and a guide to trouble shooting fluorescent installations. This is the latest edition of a guide that has proved to be of great practical value to lighting men everywhere. Write for a free copy.

CHAMPION LAMP WORKS, Lynn, Massachusetts

CHAMPION INCANDESCENT-FLUORESCENT

Washington Perspective

JAN. 16-22

The key to Kennedy's tax-cut plans lies in the unemployment rate between now and April 1. If the jobless trend continues upward in the next two months, he will ask Congress to vote a temporary tax cut to give business a quick boost.

In his inaugural address Friday, Kennedy will call for vigorous federal action to stimulate the lagging economy. He will seek additional spending for such items as unemployment compensation, highways, housing, government buildings, schools, and depressed areas.

But Kennedy and his chief economic advisers are convinced that these are long-range stimulants—that little of the new funds can get into the bloodstream of the economy this year. And the danger always is that their impact will be felt at exactly the same time business takes off again, thus adding to inflationary pressures.

A quicker and surer shot-in-the-arm, the reasoning goes, is an immediate tax cut for individuals by reducing payroll deductions by, say, 3 or 4 percentage points. This would give consumers additional spending money estimated at between \$5-billion and \$7-billion a year.

The AFL-CIO is pressing for an immediate tax cut if the jobless figure goes to 7% of the labor force. But Kennedy is playing it a little more cautious. He will wait a month or so, jumping in if the upward trend continues.

In December, unemployment reached 4.5-million, or 6.8% of the labor force. This was up from the 6.3% in November.

As matters now stand, Kennedy would get what he wants in one form or another. The economic indicator that really makes congressmen jump is the one that shows the number of unemployed. A 7% or higher rate for a couple of months would solidify Congressional tax-cut sentiment.

But Kennedy will run into trouble if he asks for authority to extend the temporary tax cut beyond the terminal date set by Congress. Congressmen of both parties are opposed to handing over such discretionary tax decisions to the White House.

Quicker decisions on freight-rate changes can be expected by shippers from the Interstate Commerce Commission starting next month. The ICC has simplified its regulatory machinery and promises even more streamlining.

The ICC, under criticism for its cumbersome and timeconsuming procedures, beat the Kennedy Administration to the punch with its action. The Kennedy task force headed by James M. Landis had recommended such a move. But the ICC said it was contemplating the changes before the Landis report was issued.

Chief procedural change will be to make final, in most instances, decisions by the four working divisions into which ICC divides itself. Hereafter, the full commission will act only on cases of major transportation importance.

This should have the effect of cutting sharply—from about 900 to perhaps 200 a year—the number of appeals that will go to the 11-man commission.

Surplus supplies of steatite talc and natural and synthetic sapphire material will be released from the government stockpile about July 1. Both will be opened to competitive bidding.

The surplus talc, about 42 short tons, is used in the manufacture of electronic spacers and insulators. The 1.8-million carats of sapphire are suitable for costume jewelry, lapidary work and abrasive purposes.

Weekly Production Records

| | Latest | Week | Year |
|--|---------|---------|---------|
| | Week | Ago | Ago |
| Steel ingot, thous tons | 1,361 | 1,103* | 2,715 |
| Autos, units | 80,135 | 92,459* | 171,629 |
| Trucks, units | 18,000 | 16,755* | 29,321 |
| Crude runs, thous bbl, daily aver | 8,167 | 8,245 | 8,396 |
| Distillate fuel oil, thous bbl | 13,272 | 13,707 | 13,821 |
| Residual fuel oil, thous bbl | 6,668 | 6,706 | 7,240 |
| Gasoline, thous bbl | 29,333 | 30,058 | 29,230 |
| Petroleum refineries operating rate, % | 82.3 | 83.4 | 86.4 |
| Container board, tons | 76,705 | 74,834 | 134,722 |
| Boxboard, tons | 54,095 | 55,438 | 85,326 |
| Paper operating rate, % | 53.8 | 74.7* | 80.6 |
| Lumber, thous of board ft | 111,570 | 179,612 | 172,500 |
| Bituminous coal, daily aver thous tons | 1,323 | 1,258* | 1,465 |
| Electric power, million kilowatt hours | 14,245 | 13,956 | 14,308 |
| Eng const awards, mil \$ Eng News-Rec | 623.9 | 407.7 | 415.6 |

Transistor Prices To Keep Dropping, P.A. Seminar Told

Washington—Transistor prices should continue their downward trend as manufacturers discover new and cheaper processes for making them, a Texas Instruments Corp. official told a P.A. seminar here.

Bruce Williams, industrial

Bruce Williams, industrial marketing manager for Texas Instruments, Dallas, also commented that Texas Instruments plans to stay competitive with foreign-made transistors, without sacrificing quality—again indicating that new manufacturing techniques should help.

By 1970, Williams estimated, the industrial market for transistors should be greater than the combined present industrial and military markets. Foreign-made transistors will probably capture some of these sales, but Williams said he looked for domestic producers to take every possible step to automate, cut costs and meet

this competition.

He said he looked for this growth in industrial transistors mostly because of an up-swing in data processing and the use of computers.

Shippers, Truckers Set To Fight Anew on Rates For Smaller Shipments

Cleveland—A hot issue between shippers and truckers small freight rate charges—may climax this week.

The Eastern Central Motor Carriers Assn., a key regional rate-making group, has scheduled a second round of hearings for Jan. 17 at the Sheraton-Cleveland Hotel here. At the first meeting, held Jan. 4, shippers complained they needed more time to study the new schedules.

Truckers are sounding out shippers on a flat rate system to replace the present temporary surcharge of \$1 a shipment on freight under 1,000 lb. The truckers want to replace

The truckers want to replace the present charge with a flat rate based on weight without regard to commodity class for weights under 300 lb.

Three Drill Distributors Ink FTC Consent Order

Washington — Three Chicago distributors of steel drills signed a consent order—with the Federal Trade Commission which bars them from making deceptive pricing, quality and guarantee claims about their products.

The firms are Kimberly Products, Inc., H&S Importers, Inc., and Chicago H&S Associates, Ltd. All are affiliated with Mitchell Handelman and Seymour Galter who also do business as H&S Associates the FTC ascerted.

serted.

The FTC last April had charged the companies with falsely implying their steel drills contained a significant amount of tungsten, setting a fictitious retail list price of \$39.95, and making misleading guarantee claims.

Key Issues In Congress

Washington—The swing toward government action against price fixing (see p. 1) will be one of the major issues affecting purchasing executives during the current session of Congress.

But there will be plenty of activity on other fronts as well, with much of it geared to needling the sluggish economy.

Following is a roundup of some of the main areas in which Congress will concentrate when the Kennedy Administration takes over:

Price Legislation:

Kefauver again will be in evidence. He considers legislation aimed at bringing down drug prices. Recent series of hearings in the pharmaceutical field has spurred his conviction that prices, particularly for new "wonder drugs," are excessive. Rather than trying any price control over drugs, he leans toward broader licensing of new developments to spur competition. The perennial bill for pre-notification for price increases will come up again, but is given little chance.

Small Business:

You can expect increased enforcement of price discrimination regulations or laws. Democrats traditionally are enthusiastic backers of the Robinson-Patman Act and its companions. Democrats feel the Federal Trade Commission must continue aggressive in his area.

Defense Procurement:

A reorganization of the Pentagon, recommended to Kennedy by Sen. Stuart Symington, would centralize procurement for defense. During the months of the recession, there will be greater pressure for set-aside contracts earmarked for small business.

Taxes:

The depth of the recession will control what Kennedy decides about tax reform. At the outset, he wants to go slow, and the Democratic Congress will go along. But if the unemployment rate continues to rise, if business keeps slowing, the new administration may consider some tax cuts. Kennedy was told by an economic task force that a temporary reduction of 3 or 4 percentage points in personal income tax rates would be a powerful anti-recession weapon. Other possibilities for tax reform: excises on manufactured products could be reduced or eliminated; depreciation changes, overdue in the opinion of many, may come; but no major tax cut, particularly in the corporate rate, should be anticipated.

Tariffs & Trade:

Negotiations for lower tariffs will come up in Geneva in the spring. The Kennedy Administration will follow the policies of past administrations, attempting to reduce tariffs. But there is this new factor: domestic industry is hurting in many areas, and there will be more pressure in Congress for quotas and other protection, particularly in metals and minerals, oil, electronic goods, and textiles.

Labor:

An increase in the minimum wage law from \$1 an hour to \$1.25 an hour will be on Kennedy's priority list of legislation. He expects he can get a law, but he may have to compromise on a graduated step-up to \$1.10 or \$1.15, before the \$1.25 rate would become effective in two or three years.

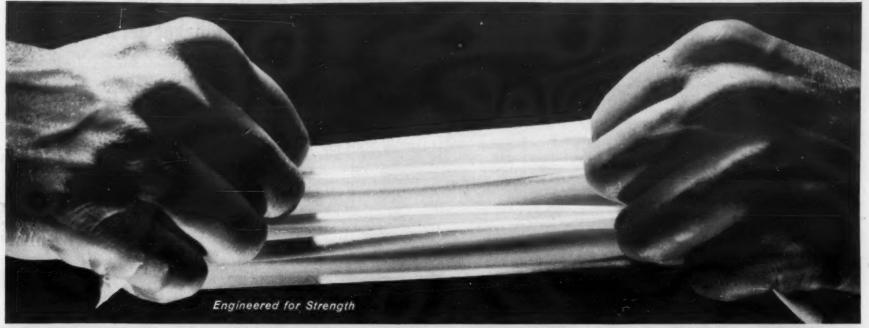
Social Security:

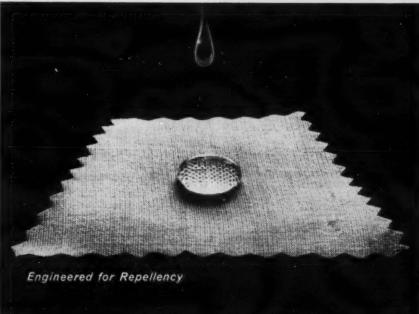
Kennedy is intent on getting legislation to provide medical care for the retired. He puts this legislation right alongside minimum wage, school construction, and increased housing aids as priority business, to be undertaken ahead of any new frontier programs. There will be a fight over bringing aged medical aid under compulsory social security taxes, but Kennedy is confident he will get most of what he wants.

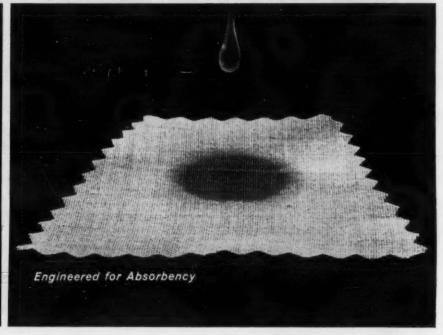
Transportation:

There will be significant action by the Administration and by Congress to strengthen truck, rail, ship, and air systems. The most spectacular proposal to watch: efforts by Kennedy to bring rates and routes under some kind of White House direction, with a "czar" at the helm. A complete reorganization would take Congressional action. Certainly, there will be bigger outlays for highway construction and for airport building—particularly if the Administration feels the economy needs a quick anti-recession shot-in-the-arm which could come from stepped-up spending for these purposes. Congress faces the question of whether to continue a 1¢ tax temporary on motor fuels in a recession year to help finance highway constructions. A prediction: Congress will let the highway trust fund go into the red, rather than maintain taxes that discourage business.

An example of Avisco Rayons in Industry







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RAYON

New Pentagon 'Make-or-Buy' Regulations Urged GAO Awards 5 Vehicle Contracts;

Washington — Tightening of million in a 1955 Air Force con-Pentagon "make-or-buy" regula-tions was proposed last week to lison Div. for J-71 aircraft by a require military contractors to refund savings made by changing schedules. The schedules specify what components will be made compressor rotors, turbine rotors, in the contractor's plant and what compressor casings and other engine components from other contractor and to make half of the tion projects.

The recommendation for the new regulation restriction was made by the General Accounting made by the General Accounting 15% of the parts elsewhere and Office in a report to Congress charging excessive costs of \$1.5- in its own plant. The change in charge by Allison.

engines and spare parts.
Under the contract, Allison agreed to buy half of the required parts in its own plant.

But in building the engines, Allison eventually bought only

the approved "make-or-buy" schedule cut the project's costs by about \$393,000. But the contract price was never adjusted in the Air Force's favor to show the saving.

Excessive Cost Estimates

GAO also charged that Allison submitted excessive cost estimates of \$1.1-million for minor parts and labor. The agency recommended that the Air Force negotiate for refunding of the total \$1.5-million excessive

Ford and Studebaker Get the Biggest

Washington—Studebaker-Packard Corp., with its highly successful Lark, has been awarded its largest federal contract for light trucks and autos.

The \$3,126,800 contract from trucks and 324 seeders. No The \$3,126,800 contract from the government's General Services Administration calls for delivery by Studebaker of 641 light trucks and 1,450 sedans, 56 of which are of the six-cylinder

compact variety.

The contract was one of five awarded by GSA, purchasing

trucks and 334 sedans. No Falcons were included in the pur-

GSA goes into the auto market on a large scale shortly after the start of every new year when it figures to get the best prices from manufacturers. The average cost of all sedans purchased by GSA this year was \$1,475, f.o.b. point of assembly, while the delivered price of compacts average \$1,-408.

Last year, the Studebaker-Packard contract was \$718,000 for 491 sedans.

Other contracts awarded this year were:

Chrysler Corp., \$2,514,400 for 241 light trucks, 328 station wagons and 764 sedans, including 80 compact Valiants.

General Motors Corp., \$1,-

046,700 for 504 light trucks and 92 sedans, including 20 compact Corvairs

American Motors Corp., \$16,-900 for 12 sedans, including seven Rambler Americans.

GSA spokesmen said bids were received from several foreign car makers but all were rejected because they were less than 6% below the American bids. The government has a "buy-American" policy when the price differential is less than 6%.

GSA, which keeps its care for

GSA, which keeps its cars for six years or 60,000 miles, buys vehicles for all government agencies except Defense.

Ling - Temco Purchases Friedrich Enterprises In Diversification Move

Dallas - Ling-Temco Electronics, Inc. has acquired Friedrich Enterprises, of San Antonio, a major firm in the air conditioning and refrigeration industry, in a cash transaction estimated at about \$6-million.

Pres. James J. Ling said the purchase was a major step in the electronic-aerospace firm's program to develop its commercial markets to 40% of total sales.

The purchase followed by one week Temco Industrial Div.'s introduction of two new consumer products, the Temco dishwasher and Temco disposer.

The Friedrich companies man-ufacture refrigerated food display cases, room air conditioners, and central air conditioning and heating units for homes and commercial use. The Friedrich product names and distribution setup will be retained. No management changes are anticipated, and production will continue at the San Antonio facilities.

Ling-Temco officials said other

industrial, commercial and consumer product lines also were being expanded. These include radio and TV broadcasting and communication systems and subsystems, environmental test de-vices, public address equipment, hi fi and stereo sound systems and components, electro-mechanical central control units for coin-op installations, transformers, vacuum tubes, and civil radar systems and subsystems.



TWA now provides more all-cargo service to Europe than ever! TWA Super Sky Merchant flights leave every week-day for Europe ... serving Shannon, London, Frankfurt, Paris, Geneva, Zurich, Milan, Rome. And fast, dependable TWA SuperJets offer world-wide Jet freight service. TWA is the only airline serving 70 United States cities and 23 key markets overseas!

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6

Few Bright Spots in Latest New Order Index

New York — Metalworking machinery orders and industrial construction contracts — with sharp gains of 21% and 8%, respectively—were the two bright spots in the latest McGraw-Hill index on New Orders for Nonelectrical Machinery and Industrial Construction contracts in November. Total new orders slipped 2½% during the month, McGraw-Hill reported.

The strong showing by the metalworking expressions.

The strong showing by the metalworking component against a lackluster performance for the rest of the industry is even more significant as far as domestic demand is concerned—because the over-all metalworking figure includes a 4% drop in foreign new orders. The rise in industrial construction contracts continues the upward trend started in August.

Other bright spots in the new orders picture are more illusory than real. The 2% gain for pumps and compressors stemmed from a rise in export orders rather than domestic demand, and the widespread gains over year-ago figures have to be considered in the light of the 1959 steel strike which greatly impeded the flow of new orders for machinery.

Commodity Group Plans Parleys on Establishing Plywood Futures Market

New York—Commodity interests have set up a round of conferences with West Coast plywood men to speed the formation of a futures market for the industry.

"The ever-growing use of plywood in building gives it the sex appeal to attract a broad trading interest," comments Stephen Greenberg, commodity manager of the Wall Street firm, Walston and Co., Inc., which is preparing the conferences.

Two Advantages

Greenberg sees two ways in which a futures market would be a great boon to the plywood industry:

• In a rising market, buying futures would protect builders when they underestimate their plywood costs

• In a weak market, selling futures would protect manufacturers and distributors against inventory losses.

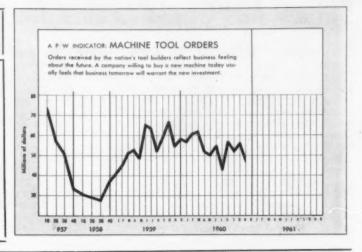
A committee was formed recently under the auspices of the New York Mercantile Exchange to arrange the West Coast Conferences. It includes officers of Merrill Lynch, Du Pont, Bache and Co., and H. Hentz and Co.

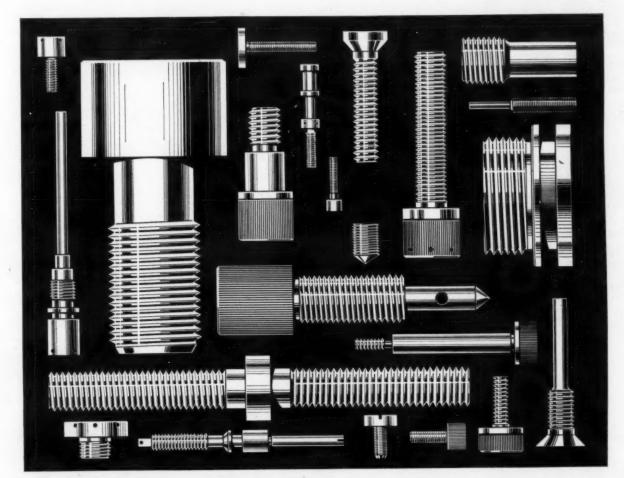
Sample futures contracts for plywood sheathing, plyform, and sanded fir plywood panels have been drawn up for the committee by William Larkin, price editor of McGraw-Hill's Construction Daily.

struction Daily.

"I think the industry will respond favorably to a plywood futures market," said Larkin.
"Plywood price are much more stable since the recent production cutbacks, but the price weakening and the inventory losses before that are still fresh in everybody's mind."

| New Orders of Nonele | ctrical N | Nachinery | |
|--------------------------------|-----------|-----------|-----|
| & Industrial Co | | | |
| (1950=100) | Nov. | Oct. | Nov |
| , | '60 | 160 | 159 |
| Total New Orders | 155 | 159 | 142 |
| Pumps and Compressors | 302 | 297 | 213 |
| Engines and Turbines | 122 | 129 | 139 |
| Const. and Mining Mach | 135 | 139 | 150 |
| Construction | 133 | 144 | 107 |
| Mining | 72 | 80 | 64 |
| Metalworking Machinery | 192 | 158 | 162 |
| Office Equipment | 210 | 219 | 185 |
| Other Industrial Mach | 131 | 143 | 121 |
| New Contracts for Indus. Const | 207 | 192 | 154 |





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Survey Airs Gripes Against Depreciation Rules

long-awaited report on businesshow they'd like such allowances changed—lent support to those who have been pressuring the government for more freedom in greater freedom if Congress choosing allowances to suit their would remove this opportunity own tastes or needs.

By far the most favored recommendation—from 51% of the large corporations—is that they be free to follow their own judgment as to useful lives and methods of depreciating their equip-ment. The next most popular change desired—the first choice —was that companies be allowed to adjust their depreciation deductions to take account of increased replacement costs.

Some Liberalization Desirable

There is general agreement that some liberalization is desirable-but no one expects that businessmen will get either their first or second choice.

Sellers of productive equip-ment of all kinds have long urged companies greater freedom to take depreciation deductions as they see fit. Their theory is that by recovering larger amortization allowances during the early years of the equipment's life, companies would be given an incentive to more quickly purchase new, more modern equipment.

Anti-Recession Measure

The report takes on added interest, since faster amortization has been widely discussed as an anti-recession measure. The soft-ness in purchases of new plant ness in purchases of new plant and equipment is given a lot of weight as one of the principle causes of the recession. Also, stepped-up investment in new and more efficient plant and equipment is touted as one way for U. S. products to be sold at lower prices, both at home and in world markets.

The first report from the most exhaustive survey of its kind ever taken shows that 70% of 1918 large companies who answered the survey are now using the liberalized depreciation methods written into law in 1954. This is a much larger percentage than earlier, more fragmentary surveys had indicated. The new methods allow a company to write off 3/3 of the cost of a piece of capital equipment in one-half of its useful life. Until the law was changed, companies had to use ful life. the so-called straight-line method, which requires the same annual deduction over the life of the equipment.

Small Firms Use New Methods

Of the smaller firms reporting, 57% report they are using the

new methods.

About 61% of the large corporations said that depreciation for book purposes is about the same as that taken for tax purposes— and practically all of them said that if they got the kind of liber-alized depreciation allowance they'd like, they'd be willing to make book and tax depreciation accounting conform.

If depreciation is liberalized, a large majority of the firms said they would be willing to give up the presently permissible capital gains treatment of income from sale of depreciated property.

sale of depreciated property.

As things stand now, this al-

for companies to reap what Treasury considers an unintended tax windfall.

Still to come this spring are breakdowns that many industries are already pestering Treasury officials about. These would show what tax practices are followed by around the country.

Washington—The Treasury's lows a 25% tax rate on such each of about 50 industry groups income—whereas the Treasury and the details of their allowances the stream the state of the stream of the strea ment. Thus, the report will show how a steel company or a furniture maker, for instance, actually depreciates specific kinds of equipment, how much has been fully depreciated, total deprecia-

tion reserves, etc.

Sellers of capital equipment are interested; and companies in a given industry want to see how their depreciation practices com-pare with the rest of the industry

Tax Relief Bill Introduced

Washington-Sen. John J. Sparkman (D-Ala.), with the support of both Republicans Democrats on the Senate Small Business Committee he heads, has introduced a bill that would provide tax relief for small business firms which re-invest part of their income in depreciable assets or inven-

An identical bill was introduced by a bipartisan group of House members. It calls for a maximum tax deduction of

20% of net income or \$30,-000, whichever is the lesser, if such income is reinvested immediately.

A similar measure never got out of committee in the last Congress. This year, its chances are considered brighter, however, because of the recession and because it is cosponsored by all 17 members of the Senate Small Business Committee and a considerable number of Republicans, as well as Democrats, in the House.

NOW MORE GALVANIZED STEEL FOR MID-AMERICA FROM

MIDWEST STEEL

For one of the greatest steel-consuming areas of the country, galvanized steel will now be in greater supply. The source is close, the service is fast, and the quality is second to none. Because

Platronics Opens Plant

Linden, N. J.-A large electroplating plant opened here by Platronics, a division of Palumbo Bros., Inc., may signal a major change in the character of the plating industry.

Designed especially for precision plating of electronic components, the new facility is said to be the largest in the U.S. It will serve customers throughout the nation, setting new precedents for the electroplating industry, which is traditionally a local or regional business.

Platronics first began to serve customers outside the New York-New Jersey area 18 months ago.



300 PURCHASING AGENTS and engineers toured this electroplating plant on its opening day two weeks ago. Built by Platronics, a division of Palumbo Bros., Inc., the plant is located in Linden, N. J.

American Cyanamid Plans Facility To Meet Demand for Methacrylate

New York—American Cyan-amid joined the race to become to get their units built and into the third U.S. producer of methyl methacrylate, a raw ma-Haas are using their own procterial used in cast or molded form

and in surface coatings.

Cyanamid obtained a license from Britain's Imperial Chemical Industries following last month's announcement from Escambia Chemical (New York) of plans build commercial-size methacrylate unit.
Both Escambia and Cyanamid

to get their units built and into operation. DuPont and Rohm & Haas are using their own processes to manufacture the material. esses to manufacture the material, as will Escambia.

The need to utilize raw ma-

terials is at the core of American Cyanamid's move into the field—specifically, to find an additional outlet for hy which also is hydrocyanic acid, is used to produce acrylonitrile. Much of its hydrocyanic acid production has be-come idle now that DuPont has begun manufacturing most of its own acrylonitrile for its Orlon fibers. Acetylene, the other key ingredient of acrylonitrile, will be the next raw material Cyanamid will have to find a market for.

Cyanamid will produce monomer methyl methacrylate in a new unit to be built at its Fortier plant near New Orleans, where it now produces acrylonitrile. It will build units in other locations for converting the monomer into molding powder thermoplastic and cast sheets.

Humble Oil Develops Semi-Trailer to Ship Grease in Bulk Loads

Pittsburgh—A truck especially designed to transport large quantities of grease has been in-troduced by Humble Oil & Re-fining Co. It has a semi-trailer body which carries three separate grease compartments with a total

capacity of 31,500 lb.

In the past, grease normally has been shipped to customers in 400-lb. drums, which are stored until needed. Now grease can be piped direct from the truck to a centralized lubrication system, thus eliminating the cost of handling, storing and cleaning the drums.

With its separate compart-ments, each of which can be un-loaded in less than half an hour, the truck can carry one, two or three types of grease at a time with no chance of intermixing. Humble is the second major

refining company to adopt this method of shipping grease. Last year Cities Service Co. unveiled a similar truck with two compartments, each capable of holding 12,000 lb.

New Piggyback Schedule Connects North, South

Richmond-North and South have been linked with a new

piggyback schedule.
The Atlantic Coast Line Railroad has placed the first all piggy-back freight train into operation between Florida and northeastern points. The train leaves Lake-land, Fla. at 5 P. M. each Satur-day, and arrives in New York Monday morning for early

second day delivery.

"The operation of this rapid service in co-operation with the Florida East Coast Railroads, the Richmond, Fredericksburg and Potomac and the Pennsylvania, is the beginning of what we believe will typify the rail freight service of the future," declared W. Thomas Price, president of the Atlentic Coast I dent of the Atlantic Coast Line.



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MANAGEMENT

A collection of timely tips, quotations, and inside slants on management and industrial developments, along with a run-down of events and trends of use to the purchasing agent.

The General Staff

The notion that the overworked businessman can unload some of the burden of his respon-sibility onto bright, energetic staffmen—and thus head off the coronaries and other ills that executive flesh is heir to—keeps gaining currency despite some good evidence to the contrary.

The idea of a general staff as a panacea for the ills of too much bigness is advanced once again in a new McGraw-Hill book titled "Staff in Organization," co-authored by Ernst Dale, a management consultant, and Lyndall Urwick, an industrial manager and himself a former general staff officer with the British Army

The authors admit that the general staff idea hasn't worked out too well in practice, but they attribute this more to a misunderstanding (on the part of top management and managers of the line) of the staff function than to any inherent defect in the concept itself.

What is needed, the authors contend, is a fresh approach to the whole problem of delegating authority, with the idea of developing a new breed of staffmen who will go on about their business without disrupting the corporate machinery.

The best ways to start, say Dale and Urwick, is to take a leaf from the experience of the military, who have been struggling with the problems of large-scale organization ever since Napoleon dreamed up the idea of the mass conscript army. Mainly, their advice is to study the theory and use of staff in military organizations with the aim of adapting the most successful practices to business

To Make or Not to Make

The National Screw Machine Products Assn. has come up with an 11-page booklet that aims to assist businessmen with their make-or-buy decisions. Although it's titled "Make or Buy as Applied to Screw Machine Products," the pamphlet is not so limited as it sounds. In addition to giving sound during the parties of the goal of the sounds. advice on the specific considerations that go into decisions as to whether to maintain a "captive" screw machine shop or

buy outside, it provides a general formula that can be applied in almost any product area. To obtain a free copy write (on company letterhead): NSMPA, 2860 East 130th St., Cleveland

New Horizons for Labor

Computerization and automation of white collar jobs may give unions the wedge they have been looking for to organize clerical jobs, says Everett M. Kassalow, research director of the Industrial Union Department of the AFL-CIO.

For years, labor unions have tried, without success, to enlist white collar workers—clerical, technical, and professional—in their ranks. But the office worker and technical man have felt a strong identification with management, believing they were a cut above the blue-collar (factory) worker.

Now, according to Kassalow, the "routinization and depersonalization" of many white collar func-tions has created a factory-like atmosphere that's favorable to the idea of unionism. Moreover, he contends, new data processing techniques are tak-ing a big bite out of conventional office routines and, at the same time, undermining the white collar worker's confidence in the continuance of the status

To take advantage of the changed climate, Kassalow advocates that the national federation create special task force units on both local and national levels to generate a new "group consciousness," particularly among professional workers. The need for such a drive, he points out, is underscored by the steady decline in blue collar jobs, where the bulk of union strength traditionally has been concentrated.

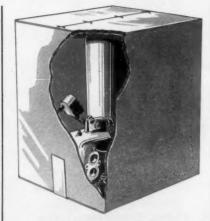
Short Pointer

The Buy American campaign may be taking on something of an evangelical tone these days, in which the basic appeal is made more to the heart than the pocketbook. Hearken to this message attached to slacks and jeans made by Oklahoma Clothing Manufacturers, Inc.: "Protect Your American Way of Life . . . if Americans don't buy American-made products—who will?"

WHAT VALUE ANALYSIS CAN DO FOR YOU



OLD METHOD: Water system was packed in corrugated container reinforced with wood-cleats. Considerable was needed to package unit.



NEW METHOD: Changeover to a corrugated box cut material costs, reduced packing time 50%. Die cut inserts on top and bottom hold the system in place.

Source: Olin Mathieson Chemical Corp., New York, N. Y.

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Take a hard look at your packaging.

RESULTS:

Material costs cut 36%

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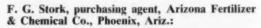
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PURCHASING WEEK ASKS . . .

How do you facilitate the handling of small orders?

C. N. Rini, director of purchases, Brookpark, Inc. (dinnerware), Cleveland:

'We establish open accounts with local suppliers. We use this method only on items that we pick up. On an item costing more than \$15 we use a purchase order. This may seem unwarranted; however, our purchase order numberform is the key to our receiving, accounts payable, and IBM costs systems. Expenditures out of petty cash are not used except for postage, etc., for they have the tendency of losing their identity as chargeable items against an account. Whatever method is used, control must be maintained on all monies paid out in the name of the company.



"The bulk of our small (under \$100) orders are in the MRO category. Since these items are all purchased locally, we recently inaugurated a monthly blanket order system with our principal suppliers. Invoices are held and settled against the monthly statement. To satisfy accounting the monthly statement. To satisfy accounting, packing slips or delivery tickets are used as receiving reports and carry notations by the user as to the department or equipment for which the item was purchased."

H. W. Bolger, director of purchases, Cook Electric Co. (custom built material for specific purposes, etc.) Chicago:

"To facilitate the handling of small orders in our business, which usually represent repeat items with the same vendors, we issue a blanket order for a six-month period and not to exceed 'X' dollars, depending on the commodities. Vendors are advised in these cases that each shipment against the blanket order must be supported by on against the blanket order must be supported by an individual packing ticket and invoice carrying the account number and/or the department requisi-tioning. This information is given to vendor on each phoned release."

F. E. Betz, purchasing agent, McDowell & Craig, Inc. (steel office furniture & equipment), Norwalk, Calif.:

"Since a small item might be a large link in the flow of production, it is my policy to give all orders the same attention regardless of size. However, I do try to combine small orders that can be supplied by one vendor. In a large purchasing operation something should be done to lighten the workload connected with a small order, but in a one-man office like ours, this should not be necessary.

G. R. Harvey, purchasing agent, Berry Asphalt Co., Magnolia, Ark.:

"From previously established sources of supply, we make use of blanket purchase orders which we make use of blanket purchase orders which are issued monthly to cover purchases of small orders of \$100 to \$50 or less in value. We find that most orders of this size are of a regular repeat nature and with the use of blanket purchase orders we have been able to reduce our over-all paper work tremendously. The few exceptions we have to this procedure are handled by requisition request to our purchasing department. quisition request to our purchasing department and are covered by individual purchase orders."

A. P. Hartman, manager of purchases, Elliott Co., a division of Carrier Corp., (electric motors, generators, etc.), Jeannett, Pa.:

'Small orders, other than those involving petty cash, are handled in much the same manner as larger orders. On most repetitious items we use a blanket order release. In my opinion, permit-ting other than purchasing personnel to place even a \$50-or-less order and circumventing normal purchasing and receiving routine is inviting sub-sequent interference on larger orders. An exception to normal procedure might be justified when the location of the purchasing department is such that it is not conducive to rendering prompt serv-ice on urgent and small orders."













Follow-Up: Letters and Comments

Slenderella Turkey

his Christmas turkey purchases—Texans must be light eaters (PW, Dec. 26, '60, "Purchasing Parade," p. 14).
Eight hundred and fifty gobblers weigh-

ing 1,600 lb. comes out to an average of less than 2 lb. per gobbler. My company gave Thanksgiving turkeys to the emonly 241 birds, but 3,100 lb. of

> Philip D. Mickle Director of Purchases Columbia Box Board Mills, Inc.

• Far be it from PW to gift anyone with such scrawny fowl. The figure should have been 16,000, which averages out to 20 lb. and by any standard that is a pretty big bird!

Nonesuch Tape

Bedford Park, Ill. In your report on our Stres-Pruf easy

chatham, N. Y. Products," p. 24) you have led your readers to believe that our tape may be used 25 times.

I certainly wish we had a tape like this, but unfortunately we do not. It is the cartons taped with Stres-Pruf easy opening tape that may be used 25 times—and

> Robert L. Fouchard Advertising & Sales Promotion Mid-States Gummed Paper Div. Minnesota Mining & Mfg. Co.

To Our Readers

This is your column. Write on any subject you think will interest purchasing executives. While your letters should be signed, if you prefer we'll publish them anonymously.

Send your letters to: "Follow-Up," PURCHASING WEEK, 330 West 42nd St., New York 36, N. Y.

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If less-than-truckload traffic is one of your current headaches, you can have confidence in McLean-Hayes motor freight service. Everybody at McLean Trucking Company and its Hayes Freight Lines Division wants your LTL business, and offers

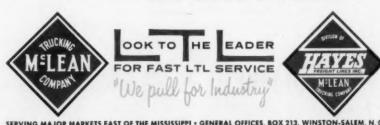
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Meetings You May Want To Attend

First Listing

Fourteenth Annual Seller-Buyer Dinner-Purchasing Agents Association of Alabama Birmingham Municipal Auditorium—February

Goods Packaging - Workshop Industrial Seminar, Hotel Astor, New York City, Feb. 27-March 1.

Western Metal Congress—American Society For Metals and five participating technical societies. Los Angeles, March 20-24.

National Packaging Exhibit — McCormick Place, Convention Hall, Chicago, III., April

General Electric 69th Annual Meeting of Share Owners—Onondaga County War Memorial Auditorium, Syracuse, April 26.

Chicago Electrical Industry Show—McCormick Place Convention Hall, Chicago, May 2-4

65th AFS Castings Congress & Exposition-

Material Handling Institute's Eastern States Show—Convention Hall, Philadelphia, May

36th Canadian Purchasing Conference and Products Display-Royal York Hotel, Toronto, May 29-30.

JANUARY 1961

Northwest Petroleum Association Convention & Trade Show, Nicollet Hotel, Minneapolis, Jan. 18-19, 1961.

Plant Maintenance & Engineering Show-International Amphitheatre, Chicago, Jan. 23-26, 1961.

County, and Municipal Purchasing Agents Association-Villa Hotel, San Mateo, Calif., Jan. 25-27.

National Association of Newspaper Purchasing Executives—Robert E. Lee Hotel, Winston-Salem, N. C., Jan. 26-28, 1961.

FEBRUARY

Chemical Buyers Group of NAPA-Mid-winter Conference, Hotel Commodore, New York, Feb. 1-2.

15th International Heating & Air-Conditioning Exposition—International Amphitheatre, Chicago, Feb. 13-16.

Purchasing Techniques Workshop-Wisconsin Center Building, Madison, Wis., Feb. 21-23.

MARCH

44th Annual Conference of California State, | 8 and 9th at Drake University has been cancelled.

> National Railway Appliance Association-McCormick Place Convention Hall, Chicago, March 6-9.

> Institute of Radio Engineers—International Convention and Show. Waldorf-Astoria Hotel and New York Coliseum, New York City, March 20-23.

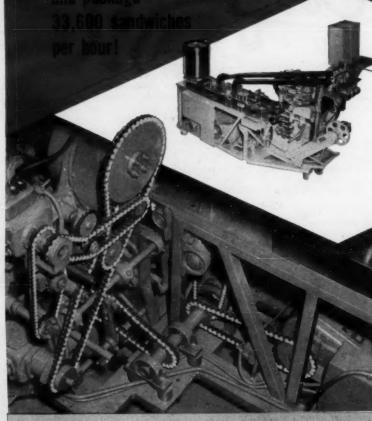
APRIL

American Society of Lubrication Engineers Annual Meeting and Exhibit—Bellevue-Stratford Hotel, Philadelphia, April 11-13, 1961

Business Equipment Exposition-Office Equipment Manufacturers Institute—New York Coliseum, New York City, April 17-21, 1961.

National Tank Truck Carriers—Annual Meeting and Trade Show, Netherland-Hilton Hotel, Cincinnati, April 30-May 2.

Liquefied Petroleum Gas Association-Office Buyers Group, NAPA—meeting originally scheduled for March Hotel, Chicago, April 30-May 3, 1961.



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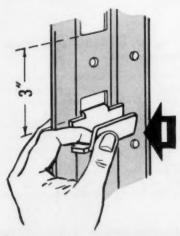








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Surveys Find Consumers Cautious In Plans for 'Big Ticket' Purchases

New York—Consumers—like industrial buyers—are going to play it cagey in the coming months. While the decline in buyer confidence seems to have been arrested, there still is no sign of a sharp pickup in the purchase of "big-ticket" items.

That's the picture revealed by two new consumer buying surveys—one from the University of Michigan's Survey Research Center and the other from the Federal Reserve Board

rall the other from the Federal Reserve Board.

The Michigan survey taken in late 1960 is actually the less pessimistic of the two because it reveals a stabilization of buying attitudes. Thus, its index of "Consumer Attitudes and Inclinations to Buy" now registers a fairly satisfactory "91" (Fall 1956=100). That's virtually unchanged from summer of 1960 and only 7% below the high of spring of 1959.

Increased Uncertainty

However, concern about personal finances and awareness of the current recessions has increased from previous surveys. In the words of the survey, "Uncertainty rather than pessimism has gained".

Buying intentions on new cars come out about the same in the two surveys (Michigan and Federal Reserve Board). Both, for example, show consumer plans to buy autos up from the past

But this could all be seasonal according to the Fed survey. Findings of this study show that the rise is much less than that noted in late 1959—thereby putting current plans substantially below year-ago levels (see chart alongside). For example, only 3.6% of the respondents now say they are planning to buy a new model in the next six months. That's sharply below the 4.6% of a year ago.

Equally important, consumers in the Fed gurrant consumers

legually important, consumers in the Fed survey are a lot less certain about making the purchase then they were a year ago. In late 1959, about 50% of those planning to buy a car were "definite" about it. The latest report shows only 42% in the "definite" column.

Poor Auto Showing

This less-than-exciting outlook is backed up by the auto sales performance in the two months since the survey was taken. Buying, in general, has failed to live up to its expectations.

Result: Inventories are now

Result: Inventories are now over the 1-million mark—a record for this time of year. And sharp cutbacks are being announced by major producers

announced by major producers. Plans to purchase used cars show the same bearish trend, according to the Fed survey. A year ago, 4.6% said they plan to buy a used model in the following six months. Now the comparable figure is 3.9%. The poor demand outlook is reflected in a declining price trend for used cars. According to the

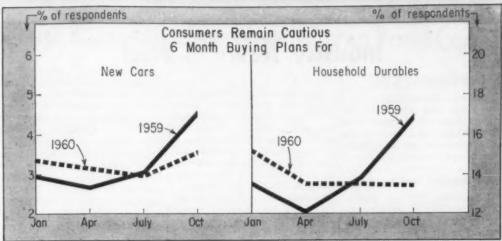
The poor demand outlook is reflected in a declining price trend for used cars. According to the Bureau of Labor Statistics, tags on these vehicles are running 12% below a year ago.

In the household durable field the same cautious buying pattern is clearly discernible. Thus, only 13.5% of the respondents now contemplate a major purchase

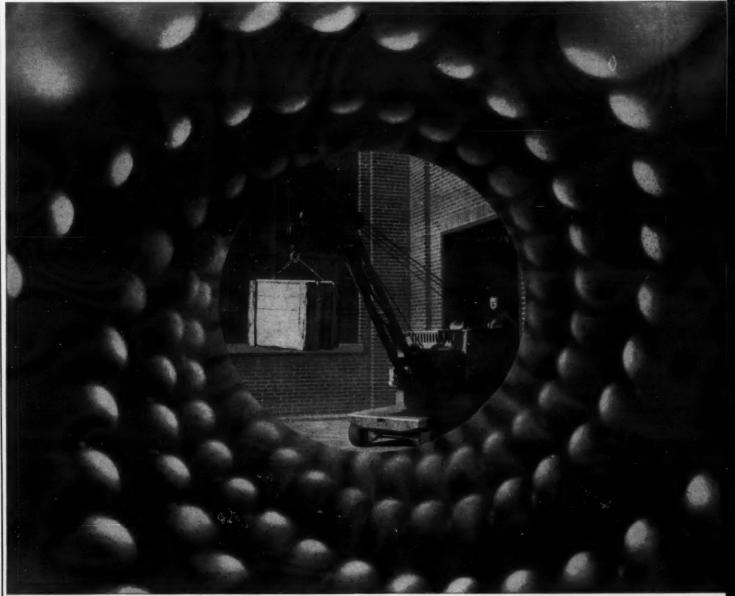
New York—Consumers—like over the next six months. Last dustrial buyers—are going to year's figure was a much larger ay it cagey in the coming 17%.

Specific appliances show the same trend. Year-to-year comparisons reveal buying plans for refrigerators down 28%, washing machines down 22%, and television sets down 14%.

This is about in line with consensus of industry leaders—which is that current sluggish sales pace will persist through early 1961.



chasing Week January 16, 1961



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ROYAL BLUE: We put a lot of work into it—You get a lot of work out of it.

This is the inside view of Roebling Royal Blue — its core has been removed to show the uniformity and symmetry of the rope structure. It's not only what's outside that counts; it's what's *inside* as well. You see how concerned we are with internal security.

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Industry News in Brief

Interchemical Corp.

Toledo—Interchemical Corp., New York, has purchased the Landers Corp. Landers is now being operated as a plant of the newly organized coated fabrics division of Interchemical.

Heisler Builds

Wilmington, Del. - Heisler Corp. is building its second plant here for the manufacture of com-pounded resins. The new plant is scheduled for completion by

Frontier Mfg. Expands

Dallas -- Frontier Mfg. Co. has completed a plant which will triple its production capacity of steel shelving and allied equipment. Frontier's entire opera-tion, including engineering, fabrication, storages and offices, has been consolidated in the new location. The company says the greater efficiency and con-solidated warehousing of the new plant will halve the previous average delivery time of 30 days.

I-T-E Revamps Marketing

Philadelphia — I-T-E Circuit Breaker Co. has set up seven new geographical marketing areas to replace its four larger sales regions.

Sales forces for its electrical divisions and subsidiaries are aligned this way: North Atlantic areas, with headquarters in Boston, Mid-Atlantic area (New York City), Southern (Atlanta), Midwest (Chicago), Pacific (San Francisco), as well as Central and Southwest areas with headquarters as yet unassigned.

Purolator Opens Plant

New York-Purolator Products, Inc., manufacturer of industrial and automotive filters, opened a new manufacturing plant Jan. 15 in Van Nuys, Calif. The company says the West Coast plant will provide design, engineering, and manu-facturing facilities for all related aviation and missile type filters now made by Purolator.

Sunolin Builds Pipeline

Philadelphia-Sunolin Chemical Co. will build a \$2-million pipe line system under the Dela-ware River from Claymont, Del., to Penns Grove, N. J. Work on the project will begin next sum-

Armco Merges 2 Firms

Middletown, Ohio — Armco Steel Corp. has merged two wholly owned subsidiaries, Na-tional Supply Co. and Union Wire Rope Corp. National Supply, with headquarters in Pittsburgh, is a manufacturer and distributer of sil field mechinary. distributor of oil field machinery and equipment. Union Wire Rope has its headquarters and manufacturing plant in Kansas City, Mo. Both companies will operate as separate divisions of Armco under the new merger

Westinghouse Builds

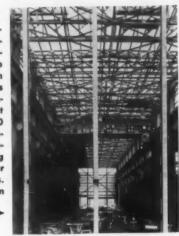
Pittsburgh - Westinghouse Electric Corp. has begun con-

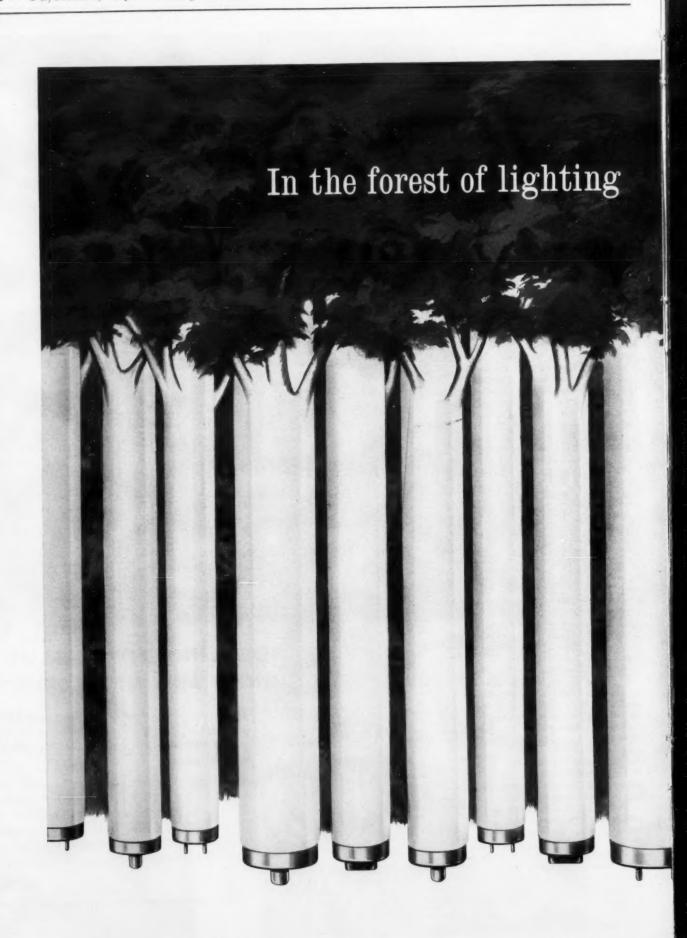
and office building in Minne-apolis to permit consolidation of the operations of several divisions. The new building will serve as a warehouse, service center, and sales office for the company's Appliance Sales, Apparatus, and Elevator divisions.

C-B/Southern

struction of a product distribu-tion center in the Minneapolis-St. Paul area. Westinghouse is ex-panding it Lamp Div. warehouse of a shortstroke compressor line from Grove City, Pa., to 1400 Brittmore Road, Houston. Central parts warehousing for the line, known as the Type AM Compressor line, also will be centered in Houston. The AM type compressor is used in oil and gas production and has ap-plications in gas lift, gas pressure maintenance, gas gathering Houston — C-B/Southern, a systems, and gas storage.

BACKBONE OF A PLANT: Westinghouse power transformer facility at Muncie, Ind., nears completion. Main assembly aisle (above) encloses area larger than three football fields, workmen moving through struc-tural skeleton. T-shaped plant will contain more than 600,000 sq. ft. of floor space, was designed specifically for the manufacture of power transformers big enough to supply normal power needs of city of 90,000 persons. Production is scheduled to begin in late 1961.





DIFFUSION BONDED sample is removed by a laboratory technician from an inclined furnace where copper components are joined by means of the new technique developed by Chase Brass and Copper Co.

Chase Brass Develops New Way to Bond Copper

Waterbury, Conn.—A new technique for joining copper to copper and certain alloys to copper has been developed by diffuses into the parts to be joined copper strip, rod, wire and tube which are coated for ise Brass and Copper Co.

Chase says the technique should result in substantial savings in operations which pre-viously required costly joining materials. In addition, the process may make possible produc-tion economies through simpli-

fication of operations.

With the new technique, two

and under proper conditions produces a bond without an interface. Joints made in this manner retain virtually all the electrical and thermal conductivity of copper.

Chase reports that tests on the company notes diffusion diffusion bonded joints have shown them to be superior to soft soldered joints in respect to or more copper components can tensile, shear and fatigue properbe joined with a homogeneous ties. Corrosion resistance also

Use of copper strip, rod, wire and tube which are coated for diffusion bonding eliminates the need to apply joining material by conventional methods. This may make it more practical automate joining operati operations, which now are primarily manual,

It is expected that biggest savings from the new technique will come in manufacturing major elements of advanced electronic equipment for radar, missiles and space satellites. The complex assemblies of copper required in these fields must have joints that are vacuum tight, free of high vapor pressure constituents and capable of operating at elevated temperatures. Such joints cannot be made properly with common low cost joining techniques, according to Chase.

Other possible fields of appli-cation for the diffusion bonding process include: electric motors, generators, transformers, switchgear relays, control equipment, electronic tubes, high frequency power generators, microwave devices, and semiconductors.

Sharon Steel Readies **Bright Annealing Line** To Improve Stainless

New York-A new bright annealing line for stainless steel will go into production at Sharon Steel Corp.'s Roemer Works in Farrell, Pa., later this month.

The new steel will be produced in strips .010 to .100 in. thick and in widths up to 23 15/16 in.

The company claims the new process eliminates the need of buffing, and pickling and that the steel can be stamped, rolled, and break formed without deforma-tion of finish. The steel is ex-pected to be of major interest to automotive manufacturers and fabricators, because of lower fabrication costs.

The bright annealing unit at Sharon Steel works on an inert atmosphere principle, and this will result in a product with much greater corrosion resistance than and this steel annealed in an open atmos-phere, Sharon officials said.

Industrial Rayon Evolves Tougher Tyrex Tire Cord

Cleveland - Industrial Rayon Corp. announced development of a new and significantly "stronger" rayon tire cord and said "there is sound basis for the expectation that even more improved Tyrex tire cord products will be de-veloped in the near future."

Industrial rayon said the new

cord is particularly well-suited for heavy duty tires, is 10% stronger, and has other sub-stantially improved characteristics that will enable the manufacture of Tyrex cord tires with greatly increased resistance to

impact failure and fatigue.

Frederick L. Bissinger, president of Industrial Rayon, said commercial production of the cord will start early this year. It will be offered at regular prices and in all deniers for passenger as well as heavy-duty truck and bus tires.

claims....this sure guide to quality remains unchanged...

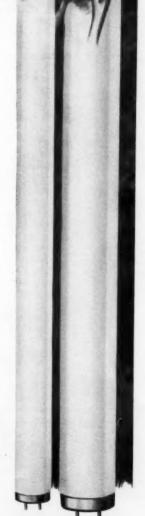
> "If at any time a Sylvania Fluorescent Lamp fails in your opinion to provide better performance than any other brand fluorescent lamps, on the basis of uniformity of performance, uniformity of appearance, maintained brightness and life, it may be returned to the supplier for full refund of purchase price."

Only Sylvania backs your purchase with this money-back guarantee. You'll find it in your Sylvania exclusive Certified Performance Policy.

Only Sylvania gives you this positive assurance of lower TCL (Total Cost of Lighting), which means cost of lamps plus power plus maintenance.

Want better light? Want to be sure you're getting it? Call your Sylvania representative or write: Lighting Division, Sylvania Electric Products Inc., Dept. 46, 60 Boston St., Salem, Mass. In Canada: Sylvania Electric (Canada) Ltd., Montreal.





SYLVANIA

Kleinschmidt Learns Pitch, Then Sees Salesmen

dor ever gets to the door of the Kleinschmidt Div. of Smith-Corona Marchant, Inc., here, the Purchasing Dept., aided by the Industrial Engineering Dept., probably knows as much about the salesman's prices as he does.

Firmin J. Pract, director of purchases at the Kleinschmidt Div., has set up a price and value analysis committee made up of representatives from Purchasing and Industrial Engineering. Its job: know the potential supplier, his product, facilities, and prices. Here's what the committee digs

up before the salesman arrives: Industrial Engineering makes a detailed cost analysis on its own hook, not knowing what the ven-dor's asking price will be, or what Kleinschmidt is currently paying for the same or similar

Basically it's an estimating are set to meet the vendor and procedure. The department know what to look for in price breaks down by operation each part under study. From this it

But the system does not end part under study. From this it learns the cost of each operation and of the part involved and is able to total the combined cost of the item in question.

Meanwhile Purchasing goes

Meanwhile, Purchasing goes out to the eligible supplier, in-vestigates its plant, and finds out if the services promised in that company's brochures are as glowing as advertised. The buyers take along a "facilities list" that includes specifications for equipment, materials, and services.
And a member of the Quality
Control Dept. may go along to
help with the survey. Also, by uncovering material possibilities otherwise overlooked, these visits may be a big plus to the supplier. Armed with this combined in-

formation, Kleinschmidt buyers

together for a materials con-ference to talk over possible price changes or, more important, new materials and processes. Kleinschmidt's engineers contribute ideas on what they expect from the supplier. The vendors bring the buyer up to date on new materials and methods. Result: Kleinschmidt can often boost quality and save costs. And, ac-cording to Praet, the process cements relationships which help future business.

'One Is Wrong'

When there is a difference bewhen there is a difference be-tween what the vendor is asking and the price Kleinschmidt thinks it should pay, Pract's philosophy is: "One of us is wrong. Either we figured wrong, or they're doing something differ-ent in the manufacturing proceent in the manufacturing proc-

To find out, the committee goes over the IE department's figures and the vendor's costs. The equipment the vendor's company is using to make the item might be inefficient or too costly, or perhaps engineering thinks the vendor is using too many steps in the manufacturing process, or that the raw materials are too expensive.

Once the price variance is found, agreement or compromise usually follows or else a new vendor contacted. But Praet does not exclusively look to price cuts for his savings. The Value Anal-ysis Committee may not help land direst reductions, but design changes resulting from its study mean lower production costs.

Examples

Some examples of how this works:

• A recent example was a stamped part requiring several operations including the counter-boring of a hole. Because of the close tolerances involved, the part was costing about six times more than a standard counter-boring. Then the Value Analysis Committee asked whether counter-bore was really neces-sary. After a closer look, the company discovered that the part as constructed was only used on a small volume assembly, but in its main usage, even the hole was unnecessary. Kleinschmidt saved up to 30¢ per part.

• In another case, Praet's committee figured out how to make a cheaper part do the same job as a more costly item.

It simply decided that certain parts could be manufactured by casting, therefore eliminating the expense of machining them.

In a majority of cases, Praet points out, the results of the analyses made by Kleinschmidt engineers concur with the claims of the vendor in regard to cost and quality of the merchandise. However, Praet stresses that value analysis is a continuing process, carried on after buying as well as before.

Check-Off List

Kleinschmidt buyer on inspec tions of the vendors is in three

On the first page the inspector lists general information about the supplier—company officers, chief engineer, number of employees, etc. Part II is a list of major equipment is a list of major equipment and machines. There also is space to note the condition of the facilities and make other remarks. At the bottom of this list, the buyer has another opportunity to add information about the inspection that might

Part III of the report is an appraisal of the vendor's inspection apparatus. Here's value analysis decisions.

The facilities and classifica-tion check-off list used by looks for:

- Are product inspected regularly?
- Is it done by a separate department?
- What is the size and organization of the department?
- Is a sampling system used in inspection?

Another list for inspection equipment and condition, plus space for additional remarks vinds up this part. Results of the "know the vendor" visits go into Kleinschmidt cost and

FORGINGS

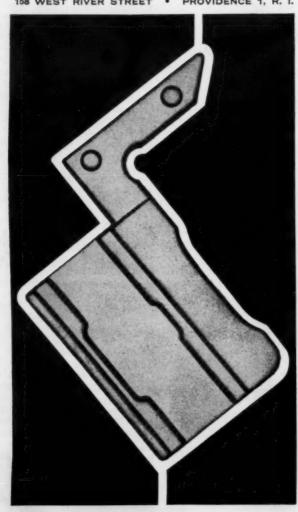
smooth "bright finish" reduces your product costs

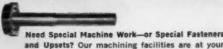
The flaw-free, accurate surfaces of Ritco "Bright Finish" Forgings save costly finishing . . . also greatly reduce machining time. The further advantage of tremendous toughness in Ritco Forgings, due to controlled grain flow, assures the highest ratio of strength to weight and dependable impact resistance at points of greatest shock and stress. It will pay you to learn more about Ritco "Bright Finish" Forgings. Send us your blueprints for estimates.

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Jet-Pak is part of Sprayon's complete line of "Aerosols for Industry"...47 maintenance and production aids in self-spraying containers, made by the oldest and leading custom-loader of aerosol specialties and sold through industrial distributors. Industrial Supply Division, Sprayon Products, Inc., 2082 E. 65th Street, Cleveland 3, Ohio.

How You Can **Order Scientifically**

Here's Part I of a Timely Guide To The Economic Order Value Method

WHAT IS EOV?

Economic Order Value is a scientific way of finding the right sizelot of orders. Behind it is this common-sense thinking:

• If you cut down on the number of orders you place, you'll save labor and paperwork, but

• If you increase their individual size to the point where you tie up too much money and storage, you'll erase—or exceed—your gains. EOV tell you exactly where the balance lies.

What has made this subject so difficult heretofore is computation of the balance. The mathematics involved is time-consuming, painstaking, dreaded by everybody.

HOW WE CAN HELP YOU

THIS SPECIAL STUDY ELIMINATES COMPUTATION DRUDG-ERY. If you can read a railroad timetable, you can handle the figures that follow in a wink.

True, you must know something about expenses and carrying charges in advance. So we have included instructions to show you how to get-or estimate-this information. READ THIS SECTION CAREFULLY FIRST.

STEP 1

WHAT TO INCLUDE IN YOUR EOV PROGRAM

Your Economic Order Value Program will work best if you concentrate on items that:

- Consume the bulk of your expenditures, and
- Have a high turnover.

FORGET about such purchases as custom-made products, capital equipment, or items bought on tricky world markets.

CHOOSE products whose:

- 1) Annual use can be predicted fairly well.
- 2) Price is reasonably stable.
- 3) Shelf life is longer than the inventory cycle.
- 4) Chance of obsolescence is small.

STEP II

HOW TO FIGURE YOUR ORDER COST

For EOV purposes, "order cost" is NOT based on the expense of running your entire department (which obviously would stay in existence whether you use EOV or not).

"Order cost" here applies only to extra cost-specifically, that extra expense (mainly labor and paperwork) which you incur when you place one more order. Economists call this concept "marginal YOU MUST HAVE MARGINAL COST DATA TO USE THE TABLES

To get it, first have your accounting department supply-or estimate-the information required below (small errors won't matter):

| 1. Salaries and fringe benefits for: | Per Year |
|---|----------|
| Purchasing Administrator | \$* |
| Buyers | ****** |
| Expediters | ****** |
| Secretaries | ****** |
| Clerical | ****** |
| 2. Telephone, telegraph | ****** |
| 3. Travel, expense accounts | |
| 4. Printing, stationery, postage | ****** |
| 5. Other charges (rent, etc.) | |
| TOTAL FOR PURCHASING DEPARTMENT | \$ |
| 6. Get same costs for Receiving & Stores, Inspec- | |
| tion, Accounts Payable, and Requisitioning | |
| GRAND TOTAL | \$ |

^{*} Components of marginal cost.

Armed with this information, you now can determine your "marginal" order cost in one of three ways:

PURCHASING WEEK

McGraw-Hill's National Newspaper of Purchasing CLIP AND MAIL THIS COUPON TODAY TO:

> **Purchasing Week** 330 W. 42nd St. New York 36, N. Y.

| Order Scientifically" guide (| |
|--------------------------------|--|
| Name | |
| Company | |
| Address | |
| CityZo My title or position is | |

1. SIMPLE METHOD: Suppose your total purchasing department cost was \$10,000 and that 1,000 orders were placed. You estimate that if you bought the same volume but used only 800 orders, the total cost would be \$9,000—a difference of \$1,000, or \$5 per order. Similarly you estimate that reductions in other departments would come to \$3 per order. Your "marginal" order cost in this case is \$8 per order.

2. SOPHISTICATED METHOD: If your accounting department keeps extremely detailed records, it can estimate the "extra" factor

in the items starred above and give you a per-order total.

3. COMPARISON METHOD: If you are in a small or medium sized manufacturing firm, pick a low order cost-say \$2 or \$3. Also pick a low figure if you are in a relatively low profit industry-metalworking, textiles, food processing.

Take a high figure (say \$6) if you are a larger firm, or in a compara-

tively high profit industry—electronics, chemicals.

STEP III

HOW TO FIGURE CARRYING CHARGES

Here again, you want only extra (or "marginal") charges.

Typically, such marginal charges range from 12% to 24% of inventory cost per year (or 1% to 2% per month).

The table below is a composite of estimates made by a number of experts to show you 1) the factors involved in carrying charges, and 2) their possible magnitude:

| Cost Component | Kunge |
|----------------------------|---------------|
| | Pct. Per Year |
| 1. Interest on investment | 5% to 6% |
| 2. Space charge | 1/4% |
| 3. Handling charges | 1% to 3% |
| 4. Supplies | 1/4% |
| 5. Insurance | 1/4% |
| 6. Taxes | 1/4% to 1/2% |
| 7. Obsolescence | 5% to 10% |
| 8. Depreciation | 5% |
| 9. Deterioration | 3% |
| 10. Use of money elsewhere | 41/2% to 8% |
| TOTAL IN PCT. PER YEAR | 12% to 241/4% |

Now try to figure your own carrying charges in one of the four following ways

1. ACCURATE METHOD: Have your accounting department supply data to fit the categories above.

2. PROFIT METHOD: If your firm is in a high-profit, fast-moving industry like electronics, chemicals, services, etc., pick 24% (or 2% per month). This figure is O.K., too, if your inventory has high handling charges, obsolescence, or deterioration.

3. INDUSTRY METHOD: If you are in metalworking, textiles, or general manufacturing, where profits are more modest and inventories relatively spoil-proof, pick 12% (or 1% per month).

4. TRIAL METHOD: If in doubt, pick 18% (or 11/2% per month)then refine this figure as you gain experience under EOV.

STEP IV

HOW TO USE THE TABLES

Now that you have your marginal order and carrying costs, you're set to use the tables we have compiled for you.

Note their versatility:

1) They cover order costs of \$2, \$3, and \$6; carrying charges

of 1%, $1\frac{1}{2}\%$, and 2% per month; and will fit any item whose monthly usage ranges from \$25 to \$10,000. (If your own figures don't match exactly, pick the closest ones in the tables.)

2) The tables not only show you how much to buy per order, but how big a monthly penalty you will incur if you order uneconomically. Let's try an example:

| | | | - | | |
|--------------------------------|----------------|------|----|----|-----|
| MONTHLY USA | GE + | \$25 | 50 | 75 | 100 |
| | \$25 | 2 | 4 | 6 | 9 |
| | 50 | 0 | 1 | 2 | 3 |
| ORDER | 75 | 0 | 0 | 0 | 1 |
| | 100 | | | | 1 |
| COST # | 200 | 1 | 0 | 0 | 0 |
| Miles by his back and a second | 300 | 2 | 1 | 1 | 0 |
| 50 7 | 400 | 2 3 | 2 | 2 | 1 |
| | 500 | 3 | 3 | 2 | 2 |
| *3 | 600 | 4 | 4 | 3 | 3 |
| | 700 | 5 | 5 | 4 | (|
| 0 | 800 | | 6 | 5 | 5 |
| | 900 | 7 | 7 | 6 | 6 |
| CARRYING CHARGE | 1,000 | 8 | 8 | 7 | 7 |
| | 1,500 2,000 | 13 | 13 | 12 | 12 |
| CHARGE @ | 2,000 | 18 | 18 | 17 | 17 |
| 2 | 2,500 | 23 | 23 | 22 | 22 |
| | 3,000 | 28 | 28 | 27 | 27 |
| 2% | 7,000 | 38 | 38 | 37 | 3 |
| | 5,000 | 48 | 48 | 47 | 4 |
| Per Mo. | 8,000 | 58 | 58 | 57 | 5) |
| | 8,000 | 78 | 78 | 77 | 77 |
| | 10,000 | 98 | 98 | 97 | 97 |

EXAMPLE

You want to buy an item whose carrying cost is 24% per year (2% per month), and whose order cost is \$3. You consume \$50 worth of this item per month, and get no discounts. Here's what you do:

- 1. Pick the table which is geared to 2% carrying charges and \$3 order charges. (For convenience a part of it is reproduced herewith.)
- 2. Locate the \$50 usage figure on the horizontal line at the top. (We've put a star over it.)
- 3. Follow the arrow down the \$50 column until you hit the first zero.*
- 4. Now turn left and follow the horizontal arrow to the left scale. Here you will find \$75. That's your answer. In other words, for this \$50 monthly-usage item, your order size should be \$75.
- *Whenever several zeros are stacked, choose the top one. It will give your the lowest order value.

Now for the wages of sin-HOW TO FIGURE PENALTIES.

Let's take the \$50 monthly-usage item. All the figures above zero in the same column show the monthly penalty for buying too little; all the figures below zero show the monthly penalty for buying too much.

Had you ordered \$25 worth of this item (instead of \$75), you would have wasted \$4 per month. Had you ordered \$10,000, you would have wasted \$98 per month. (Just think what that would be in one year!)

STEP V

HOW TO EVALUATE QUANTITY DISCOUNTS AND TRANSPORTATION SAVINGS

Suppose a supplier says, "I'll give you a discount if you order more than your EOV tables tell you to."

Should you listen?

YES-if the discount is bigger than the penalty for overbuying.

NO-if the discount is less than the penalty.

This example will show you how to form your judgment:

Once more, let's take our familiar \$50-monthly-usage item with a \$3 order cost and 2% per-month carrying charges. The EOV table says you should order \$75 at a time.

However, your supplier promises, "If you buy \$600, I'll give you a 5% discount."

Here's what you do:

- 1. Figure out how many months' supply the vendor is trying to sell you. (In this case it's 12.)
- 2. Now locate \$600 on the vertical (left) scale and follow this row until it intersects with the \$50 monthly-usage column.
- 3. The figure at the intersection is \$4. That's your monthly penalty for overbuying.
- 4. Since you would incur this penalty 12 times, your aggregate penalty would be \$48.
- 5. Match this against the supplier's discount (in this case \$30) and see how you make out. In our example, his offer is a dud because the discount covers only $62\frac{1}{2}\%$ of the penalty.

Use the same method to figure whether it's worthwhile to buy in large lots to gain volume freight rates.

(The second installment of this series will appear next week.)

| MONTHLY L | JSAGE | • | \$25 | 50 | 75 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1,000 | 1,500 | 2,000 | 2,500 | 3,000 | 4,000 | 5,000 | 6,000 | 8,000 | 10,000 |
|-----------------|--------|----------------|------|----|----|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|----------|----------|----------|-------|-----------|-------|------------|------------|------------|
| | | \$25 50 | 1 | 3 | 4 | 6 | 13 | 21 | 28 | 36 | 43 | 51 | 58 | 66 | 74 | 112 | 151 | 180 | 229 | 337 | 386 | 465 | 622 | 780 |
| | 1100 | 50 | 0 | 1 | 1 | 2 | 5 | 9 | 12 | 16 | 19 | 23 | 26 16 | 30 18 | 34 21 | 52 33 | 71 45 | 90 57 | 109 | 147 95 | 186 | 225 145 | 302 186 | 380 247 |
| ORDER | ar . | 100 | 0 | 0 | 0 | 1 | 2 | 3 | 5 | 6 | 8 | 9 | 11 | 13 | 14 | 23 | 32 | 41 | 50 | 68 | 86 | 105 | 143 | 181 |
| COST | ш | 200 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 8 | 12 | 16 | 20 | 28 | 37 | 46 | 63 | 81 |
| COSI | S | 300 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 4 | 6 | 8 | 11 | 16 | 21 | 27 | 39 | 48 |
| | RCHASE | 400 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 6 | 9 | 13 | 17 | 24 17 | 32 23 |
| 52 | 古 | 500 | 2 | 1 | 1 | 1 | 1 | U | 0 | 0 | 0 | 0 | 0 | 0 | - 0 | 1 | | 3 | 4 | 0 | | 1.1 | | |
| AND DESCRIPTION | ~ | 600 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 6 | 8 | 12 | 16 12 |
| | 2 | 800 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 4 | 6 | 9 |
| | 0 | 900 | 4 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 4 | 8 |
| CARRYING | 5 | 1,000 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 5 |
| | H | 1,500 | 7 | 6 | 6 | 6 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| CHARGE | CORREC | 2,000 2,500 | 12 | 9 | 11 | 11 | 10 | 9 | 9 | 8 | 8 | 8 | 7 | 7 | 7 | 6 | 5 | 4 | 3 | 3 | 2 | 2 | 1 | 1 |
| =~ | 0 | 3,000 | 14 | 14 | 13 | 13 | 13 | 12 | 11 | 11 | 11 | 10 | 10 | 10 | 9 | 8 | 7 | 7 | 6 | 5 | 4 | 4 | 3 | 2 |
| 1% | O | 4,000 | 19 | 19 | 18 | 18 | 17 | 17 | 16 | 16 | 15 | 15 | 15 | 14 | 14 | 13 | 12 | 11 | 11 | 9 | 8 | 8 | 6 | 5 |
| | | 5,000 | 24 | 24 | 23 | 23 | 22 | 22 | 21 | 20 | 20 | 20 | 19 | 19 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 10 | 9 |
| Per Mo. | | 6,000 | 29 | 29 | 28 | 28 | 27 | 27 | 26 | 26 | 25 | 25 | 25 | 24 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 15 | 13 |
| | 1117 | 8,000 | 39 | 39 | 38 | 38 | 37 | 37 | 37 | 37 | 36 | 36 | 35 | 35 | 34 | 33 | 32 | 31 | 30 | 28 | 27 | 26 | 24 | 22 |
| | | 10,000 | 49 | 49 | 48 | 48 | 47 | 47 | 46 | 46 | 45 | 45 | 44 | 44 | 44 | 43 | 42 | 41 | 40 | 38 | 37 | 36 | 34 | 32 |

| MONTHLY I | USAGE . | | \$25 | 50 | 75 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1,000 | 1,500 | 2,000 | 2,500 | 3,000 | 4,000 | 5,000 | 6,000 | 8,000 | 10,000 |
|--|---------------|-------------------------|------|----|----|-----|-----|-----|-----|----------|----------|----------|----------|-----|----------|----------|----------|----------|----------|----------|----------|------------|------------|------------|
| A CONTRACTOR OF THE PARTY OF TH | DESCRIPTION I | \$25 | 1 | 2 | 4 | 6 | 13 | 20 | 27 | 35 | 42 | 49 | 57 | 65 | 73 | 112 | 149 | 188 | 227 | 305 | 383 | 461 | 618 | 776 |
| | | \$25 50 | 0 | 1 | 1 | 2 | 5 | 8 | 12 | 15 | 18 | 22 | 26 | 29 | 33 | 52 | 69 | 89 | 107 | 145 | 183 | 221 | 299 | 376 |
| ORDER | The state of | 75 | 0 | 0 | 1 | 1 | 3 | 4 | 6 | 8 | 11 | 13 | 15 | 17 | 20 | 32 | 43 | 55 39 | 67 47 | 91 65 | 117 | 142 102 | 192 139 | 243 176 |
| UNDER | 10000 | 100 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 5 | 7 | 8 | 10 | 12 | 13 | 22 | | | | | | | | |
| COST | ш | 200 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 8 | 11 | 14 | 18 | 26 | 34 | 43 | 60 | 77 |
| COSI | SE | 300 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 4 | 5 | 2 | 10 | 13 | 18 | 23 | 33 21 | 44 |
| | 2 | 400 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | A | 7 | 9 | 14 | 19 |
| 52 | RCH | 500 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | U | 0 | 1 | | | - | - | | - | | |
| 14000 | 2 | 600 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 6 | 9 | 13 |
| | 5 | 700 800 900 | -4 | 4 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | * | 4 | 9 |
| | 4 | 800 | 5 | 4 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 5 | - 5 |
| | | 900 | 6 | 5 | 5 | 5 | 4 | 3 | 3 | 2 | 4 | | | | | | - | - | - 0 | - | - | - | | - |
| CARRYING | 5 | 1,000 | 6 | 6 | 6 | 5 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 3 |
| | H | 1,500 | 10 | 10 | 9 | 9 | 8 | 8 | 7 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 3 | 2 | 1 | 1 |
| CHARGE | ~ | 2,000 | 14 | 13 | 13 | 13 | 12 | 11 | 11 | 10 | 13 | 12 | 13 | 12 | 12 | 11 | 9 | 9 | 9 | 7 | 6 | 5 | 3 | 2 |
| OIMIGE | CORRECT | 2,500 | 18 | 17 | 17 | 16 | 15 | 15 | 14 | | | 13 | | | 16 | 1.5 | 12 | 10 | 11 | 10 | 0 | 0 | - | - |
| W1/0/ | 0 | 3,000 | 21 | 21 | 20 | 20 | 19 | 19 | 18 | 17 | 17 | 16 | 16 | 16 | 15 | 15 | 13 | 12 | 11 | 10 | 15 | 1.4 | 12 | 11 |
| 11/2% | 0 | 3,000 4,000 5,000 | 29 | 28 | 28 | 28 | 27 | 26 | 25 | 25 | 24 32 | 24 31 | 24 31 | 23 | 23 30 | 22 | 20 27 | 19 26 | 25 | 24 | 22 | 14 21 | 12 19 | 17 |
| | | 5,000 | 36 | 36 | 35 | 35 | 34 | 33 | 33 | 32 40 | 39 | 39 | 38 | 38 | 38 | 37 | 35 | 34 | 33 | 31 | 29 | 28 | 26 | 24 |
| Per Mo. | | 6,000 | 44 | 43 | 43 | 43 | 42 | 41 | 40 | | | | | | | | | | | | | | | 38 |
| I CI IVIO. | | 8,000 | 59 | 58 | 58 | 58 | 57 | 56 | 55 | 55 | 54 | 54 | 53 | 53 | 53 68 | 52 67 | 50 | 48 63 | 47 62 | 46 60 | 44 59 | 43 57 | 40 55 | 53 |
| | 150 | 10,000 | 74 | 73 | 73 | 73 | 72 | 71 | 70 | 70 | 69 | 69 | 68 | 68 | 00 | 0/ | 64 | 0.3 | 02 | 00 | 39 | 3/ | 23 | 33 |

| MONTHLY U | SAGE | • | \$25 | 50 | 75 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1,000 | 1,500 | 2,000 | 2,500 | 3,000 | 4,000 | 5,000 | 6,000 | 8,000 | 10,000 |
|-----------|----------|-------------------------|----------|----|----------|----------|----------|----------|----------|-----|-----|-----|-----|----------|-------|-------|-------|-------|-------|-------|-------|----------|----------------|--------|
| | | \$25 | 1 | 2 | 4 | 6 | 12 | 19 | 27 | 34 | 41 | 49 | 56 | 64 | 71 | 109 | 148 | 186 | 225 | 302 | 380 | 458 | 615 | 772 |
| | | \$25 50 | 0 | 1 | 1 | 2 | 5 | 8 | 11 | 14 | 18 | 21 | 25 | 28 | 32 | 50 | 68 | 86 | 105 | 143 | 181 | 219 | 295 | 372 |
| ADDED | | 75 | 0 | 0 | 0 | 1 | 2 | 4 | 6 | 8 | 10 | 12 | 13 | 16 | 18 | 30 | 42 | 53 | 65 | 89 | 114 | 139 | 188 136 | 239 |
| ORDER | | 100 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 5 | 6 | 8 | 9 | 11 | 12 | 20 | 28 | 37 | 46 | 63 | 81 | 100 | | |
| COCT | ш | 200 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 6 | 9 | 13 | 17 | 24 | 32 | 40 | 57 | 74 |
| COST | S | 300 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0. | 0 | 1 | 1 | 2 | 4 | 6 | 8 | 12 | 16 | 21 12 | 31 19 12 | 20 |
| | < | 400 | 3 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 9 | 9 | 9 | 7 | 19 | 1 |
| 52 | PURCHASE | 500 | 4 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | U | U | 0 | | 0 | U | 1 | | 3 | 3 | | 14 | |
| | 2 | 600 | 5 | 4 | 4 | 4 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 4 | 7 | 1 |
| | 5 | 700 | 6 | 5 | 5 | 4 | 4 | 3 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 0 | . 0 | 0 | 0 | 0 | 0 | 1 | 3 | |
| | 4 | 800 | 7 | 6 | 6 | 5 | 4 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | |
| | | 900 | 8 | / | | 0 | 2 | 3 | | | | 4 | - | 2 | - | | 1 | 1 | 1 | 0 | 0 | 0 | 1 | |
| CARRYING | 5 | 1,000 1,500 2,000 | 9 | 8 | 8 | 7 | 6 | 6 | 5 | 5 | 4 | 4 | 9 | 3 | 7 | 5 | 5 | 4 | 4 | 3 | 2 | 1 | 0 | |
| | m . | 1,500 | 14 | 13 | 13 | 12 | 16 | 11 | 10 15 | 14 | 14 | 13 | 13 | 12 | 12 | 10 | 9 | 8 | 8 | 6 | 5 | 4 | 3 | |
| CHARGE | CORRECT | 2,000 | 19 | 24 | 18 | 23 | 22 | 22 | 20 | 19 | 19 | 18 | 18 | 17 | 17 | 15 | 14 | 13 | 12 | 10 | 9 | 8 | 6 | |
| | E . | 2,500 | - | | | | | | 25 | 24 | 24 | 23 | 23 | | 22 | 20 | 19 | 18 | 17 | 15 | 13 | 12 | 10 | - |
| 2% | 8 | 3,000 4,000 | 29 | 28 | 28 38 | 27 37 | 26 36 | 25 35 | 35 | 34 | 33 | 33 | 32 | 22 32 | 32 | 30 | 28 | 27 | 26 | 24 | 22 | 21 | 10 19 28 | 1 |
| 2/0 | 0 | 4,000 | 39 49 | 48 | 48 | 47 | 46 | 45 | 44 | 44 | 43 | 43 | 42 | 42 | 42 | 40 | 38 | 37 | 36 | 34 | 32 | 31 | 28 | 2 |
| D | | 5,000 | 59 | 58 | 57 | 57 | 56 | 55 | 54 | 54 | 53 | 53 | 52 | 52 | 51 | 50 | 48 | 47 | 46 | 43 | 42 | 40 | 37 | 3 |
| Per Mo. | | - | 79 | 78 | 78 | 77 | 76 | 75 | 74 | 74 | 73 | 73 | 72 | 72 | 71 | 69 | 68 | 67 | 65 | 63 | 61 | 60 | 57 | 5 |
| | | 8,000 10,000 | 99 | 98 | 98 | 97 | 96 | 95 | 94 | 94 | 93 | 93 | 92 | 92 | 91 | 89 | 88 | 87 | 85 | 83 | 81 | 79 | 76 | 74 |

| MONTHLY U | SAGE | • | \$25 | 50 | 75 | 100 | 200 | 300 | 400 | 500 | 800 | 700 | 800 | 900 | 1,000 | 1,500 | 2,000 | 2,500 | 3,000 | 4,000 | 5,000 | 6,000 | 8,000 | 10,000 |
|-------------|------------|----------------|----------|----|----------|----------|-----|----------|----------|----------|----------|----------|-------|----------|----------|----------|----------|-------|------------|------------|------------|------------|----------------------|-------------|
| new control | | \$25 50 | 2 | 4 | 7 | 10 | 21 | 32 | 43 | 55 | 66 | 78 | 89 | 101 | 112 | 171 | 229 | 288 | 348 | 465 | 583 283 | 701 341 | 938 | 1176 576 |
| | | 50 | 0 | 2 | 3 | 4 | 9 | 14 | 19 | 25 15 | 30 18 | 36 22 | 41 26 | 47 29 | 53 32 | 82 52 | 109 | 138 | 167 107 | 225 135 | 183 | 221 | 458 299 | 376 |
| ORDER | | 75 100 | 0 | 1 | 1 | 1 | 3 | 5 | 11 | 10 | 13 | 15 | 18 | 20 | 23 | 37 | 50 | 63 | 77 | 105 | 133 | 162 | 218 | 276 |
| | | | 0 | - | - | - | 1 | - | 2 | 2 | A | 6 | 6 | 7 | 9 | 15 | 20 | 26 | 33 | 46 | 59 | 72 | | 127 |
| COST | Ä | 200 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 8 | 11 | 14 | 18 | 26 | 34 | 43 | 99 59 40 29 | 77 |
| | Ä | 300 400 | 1 | 1 | 0 | ô | ô | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 5 | 6 | 9 | 11 | 17 | 22 | 28 | 40 | 53 |
| *3 | PURCHASE | 500 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 4 | 5 | 7 | 11 | 15 | 20 | 29 | 38 |
| - | 2 | 600 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 5 | 8 | 11 | 14 | 21 16 | 26 |
| | 5 | 700 | 2 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 10 | 16 | 22 |
| | 7 | 800 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 8 | 12 | 17 |
| | No. of Lot | 900 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 6 | 9 | 13 |
| CARRYING | 5 | 1,000 | 4 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 4 | 7 | 11 |
| | H | 1.500 | 6 | 6 | 6 | 5 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| CHARGE | CORRECT | 2,000 2,500 | 9 | 8 | 8 | 8 | 7 | 6 | 6 | 5 | 5 | 5 | 4 7 | 6 | 6 | 4 | 2 | 7 | 3 | 1 | 0 | 0 | 0 | 1 |
| | ~ | | 11 | 11 | 10 | 10 | 9 | 9 | | 0 | | | | 0 | 0 | 0 | - | 3 | 3 | | | | | 0 |
| W 07 | 8 | 3,000 4,000 | 14 | 13 | 13 | 13 | 12 | 11 | 10 | 10 | 10 | 9 | 9 | 9 | 9 | 8 | 6 | 10 | 5 | 3 | 3 | 2 | 1 | 0 |
| 1% | 0 | 4,000 | 19 24 | 18 | 18 23 | 18 23 | 17 | 16 21 | 15 20 | 15 20 | 14 | 14 | 14 | 13 | 13 | 17 | 11 15 | 14 | 13 | 12 | 11 | 10 | 9 | 3 |
| Day Ma | | 5,000 5,000 | 29 | 23 | 28 | 28 | 27 | 26 | 25 | 25 | 24 | 24 | 23 | 23 | 23 | 22 | 20 | 19 | 18 | 17 | 15 | 14 | 12 | 11 |
| Per Mo. | | 8,000 | 39 | 38 | 38 | 38 | 37 | 36 | 35 | 35 | 34 | 34 | 33 | 33 | 33 | 32 | 30 | 29 | 28 | 26 | 25 | 23 | 21 | 19 |
| | | 10,000 | 49 | 48 | 48 | 48 | 47 | 46 | 45 | 45 | 44 | 44 | 43 | 43 | 43 | 42 | 40 | 39 | 37 | 36 | 34 | 33 | 31 | 29 |

| MONTHLY | USAGE | • | \$25 | 50 | 75 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 990 | 1,000 | 1,500 | 2,000 | 2,500 | 3,000 | 4,000 | 5,000 | 6,000 | 8,000 | 10,000 |
|----------|---------|--|------|----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|----------|--------|
| | | \$25 | 2 | 4 | 7 | 9 | 20 | 31 | 42 | 54 | 65 | 76 | 88 | 99 | 111 | 169 | 227 | 285 | 344 | 461 | 579 | 679 | 933 | 1170 |
| | | \$25 50 | 0 | 1 | 2 | 3 | 8 | 13 | 18 | 24 | 29 | 35 | 40 | 45 | 51 | 79 | 107 | 135 | 164 | 221 | 279 | 337 | 454 | 570 |
| ADDED | 350 J D | 75 | 0 | 1 | 1 | 2 | 5 | 7 | 11 | 14 | 17 | 21 | 24 | 28 | 31 | 49 | 67 | 86 | 104 | 142 | 179 | 217 | 293 | 371 |
| ORDER | | 100 | 0 | 0 | 0 | 1 | 3 | 5 | 7 | 9 | 12 | 14 | 16 | 19 | 21 | 34 | 47 | 61 | 74 | 102 | 130 | 158 | 214 | 271 |
| COCT | ш | 200 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 12 | 18 | 24 | 30 | 43 | 55 | 68 | 95 | 122 |
| COST | S | 200 300 400 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 6 | 9 | 12 | 16 | 23 | 31 | 39 | 55 36 | 72 |
| 4. | 4 | 400 | 2 | 1 | 1 | - 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 5 | 1 | 9 | 14 | 19 | 25 | 25 | 48 |
| 53 | RCHASE | 500 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | U | U | 0 | U | U | 0 | 1 | | * | 2 | 3 | 13 | 1/ | | |
| | ~ | 600 | 3 | 3 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 6 | 8 | 11 | 18 | . 25 |
| | 5 | 700 | 4 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 3 | 8 | 13 | 18 |
| | 0 | 700 800 900 | 5 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | A | 7 | 10 |
| | | AND DESCRIPTION OF THE PARTY OF | 5 | 2 | 4 | 4 | 3 | 3 | | | - | - | - | | * | | | 0 | | 1 | | 0 | | |
| CARRYING | i 5 | 1,000 1,500 | 6 | 5 | 5 | 5 | 4 | 3 | 3 | 2 | 2 | 2 | 1 | A | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | ш | 1,500 | 10 | 9 | 9 | 12 | 11 | 10 | 10 | 0 | 9 | 9 | 9 | 7 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 1 | 0 | 0 |
| CHARGE | CORRECT | 2,000 2,500 | 14 | 17 | 12 16 | 16 | 15 | 14 | 13 | 13 | 12 | 12 | 11 | 11 | 11 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| | E | | | | | 20 | 19 | 18 | 17 | 16 | 16 | 15 | 15 | 14 | 14 | 12 | 11 | 10 | 9 | 7 | 6 | 5 | A | 2 |
| 11/2% | 8 | 3,000 | 21 | 20 | 20 27 | 27 | 26 | 25 | 24 | 24 | 23 | 23 | 22 | 22 | 21 | 20 | 18 | 17 | 16 | 14 | 12 | 11 | 9 | 8 |
| 1/2/0 | | 5,000 | 36 | 35 | | 35 | 33 | 32 | 32 | 31 | 31 | 30 | 29 | 29 | 29 | 27 | 25 | 24 | 23 | 21 | 19 | 18 | 16 | 14 |
| Dor Mo | | 3,000 4,000 5,000 6,000 | 44 | 43 | 35 42 | 42 | 41 | 40 | 39 | 39 | 38 | 37 | 37 | 36 | 36 | 34 | 33 | 31 | 29 | 28 | 26 | 25 | 22 | 20 |
| Per Mo. | -34 | 8,000 | 59 | 58 | 57 | 57 | 56 | 55 | 54 | 54 | 53 | 52 | 52 | 51 | 51 | 49 | 47 | 46 | 45 | 43 | 41 | 39 | 36 | 34 |
| | | 10,000 | 74 | 73 | 72 | 72 | 71 | 70 | 69 | 68 | 68 | 67 | 67 | 66 | 66 | 64 | 62 | 61 | 60 | 57 | 55 | 54 | 51 | 48 |

| MONTHLY | USAGE (| | \$25 | 50 | 75 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1,900 | 1,500 | 2,000 | 2,500 | 3,000 | 4,000 | 5,000 | 6,000 | 8,000 | 10,000 |
|----------|-----------|----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----|----------|----------|-------|----------|----------|----------|-----------|----------|------------|------------|----------------------|------------|
| | | \$25 | 2 | 4 | 6 | 9 | 19 | 30 | 41 | 53 | 64 | 75 | 87 | 98 | 109 | 167 | 225 | 283 | ·341 | 458 | 576 | 694 | 929 | 1166 |
| | | \$25 50 | 0 | 1 | 2 | 3 | 8 | 13 | 18 | 23 | 28 | 33 | 39 | 44 | 50 | 77 | 105 | 133 | 162 | 219 | 276 | 334 | 450 | 566 |
| ORDER | | 75 | 0 | 0 | 1 | 1 | 4 | 7 | 10 | 13 | 16 | 19 | 23 | 26 | 30 | 47 33 | 65 46 | 83 | 102 72 | 139 | 176 127 | 214 154 | 289 210 | 366 266 |
| ONDEN | | 100 | 0 | 0 | 0 | 1 | 2 | 4 | 0 | 8 | 11 | 13 | 15 | ,18 | 20 | 33 | | 59 | | | | | | |
| COST | SE | 200 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 3 | 4 | 5 | 6 | 11 | 17 | 20 | 28 | 40 21 | 53 29 | · 65 | 91 | 117 |
| 0031 | 15 | 300 400 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 6 | 7 | 12 | 17 | 22 | 33 | 44 |
| 59 | 主 | 500 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | Ô | Ô | 1 | 2 | 3 | 4 | 7 | 11 | 14 | 91 52 33 22 | 30 |
| *3 | RCH CH | | A | 4 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 | 6 | 12 | 15 | 22 |
| | = | 600 700 | 5 | 5 | 4 | 4 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 | 6 | 10 | 15 |
| | 7 | 800 | 6 | 6 | 5 | 5 | 4 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 4 | 7 | 11 |
| | | 900 | 7 | 7 | 6 | 6 | 5 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 5 | 8 |
| CARRYING | 3 5 | 1,000 | 8 | 8 | 7 | 7 | 6 | 5 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 5 |
| | | 1,500 | 13 | 13 | 12 | 12 | 11 | 10 | 9 | 8 | 8 | 7 | 7 | 6 | 6 | 5 | 5 | 4 | 2 | 1 | 0 | 0 | 0 | 0 |
| CHARGE | RRECT | 1,500 2,000 2,500 | 18 23 | 18 | 17 22 | 17 | 16 21 | 15 20 | 14 | 13 | 13 17 | 17 | 16 | 11 | 11 | 13 | 12 | 11 | 10 | 9 | 3 | 2 6 | 1 | 0 |
| | 8 | | | | | | | | | | | | | | | | | 15 | | 10 | 11 | 3 | 7 | |
| 2% | 8 | 3,000 | 28 38 | 28 38 | 27 37 | 27 37 | 26 36 | 25 35 | 24 34 | 23 33 | 23 32 | 31 | 21 31 | 21 30 | 30 | 18 28 | 17 26 | 15 25 | 14 23 | 12 | 11 | 9 | 15 | 13 |
| 4/0 | | 4,000 | 48 | 48 | 47 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 41 | 40 | 40 | 38 | 36 | 34 | 33 | 31 | 29 | 27 | 24 | 21 |
| Per Mo. | | 3,000 4,000 5,000 6,000 | 58 | 58 | 57 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 51 | 50 | 50 | 47 | 45 | 44 | 43 | 40 | 38 | 36 | 33 | 31 |
| rer Mo. | | | 78 | 78 | 77 | 77 | 75 | 74 | 73 | 73 | 72 | 71 | 71 | 70 | 69 | 67 | 65 | 63 | 62 | 60 | 57 | 55 | 52 | 49 |
| | | 8,000 10,000 | 98 | 98 | 97 | 97 | 95 | 94 | 93 | 92 | 92 | 91 | 90 | 90 | 89 | 87 | 85 | 83 | 82 | 79 | 77 | 75 | 71 | 68 |

Profitable Reading for P.A.'s . . .

New Books-

Top Management Handbook. H. B. Maynard, editor-in-chief, Published by McGraw-Hill Publishing Co., 330 42nd St., New York 36, N. Y., 1,236 pages. Price: \$17.50.

Sixty top managers, each an expert in his particular field, tell what they have found it wise to do in the actual "daily" managing of their businesses. They deal with each area of management; what it calls for in the manager's thinking and ability; and how it

can be best carried out.

The book discusses such management chores as: gathering information; directing, guiding, and leading; evaluating results; promoting innovation; managing re-search and development; building and retaining top management, and many more areas. Each sector is abundantly documented with case history material to help the reader evaluate his own performance.

The Changing Dimensions of Office Management. Management Report 41. Published by the American Management Asso., 1515 Broadway, New York 36, N. Y., 159 pages. Price: \$3.75 (AMA members -\$2.50).

Although new tools and techniques such as data-processing and systems approaches have en-hanced the effectiveness of office they have also operations, creased the demands on the office manager.

In this report, participants in this "administrative revolution" survey the changes that have taken place in data processing, systems planning, office services, office design and maintenance, and many other areas of administrative responsibility. All of the papers included in this report were originally presented at AMA's 1959 Annual Office Management Conference.

From the-

-Manufacturers

Wear Strip Conveyor

Describes advantages of selflubricating wood wear strip for trouble-free operation of conveying machinery. Also illustrates typical applications. (6 pages). Dept. PE, Paramount Oilless Bearing Co., Inc., 99 Hope Ave., Worcester, Mass.

Copper Tubing

Discusses company's line of copper water tube, copper refrigeration tube, copper drainage tube, etc. includes installation data, plus soldering, brazing, and flared joint information. (32 pages). Scovill Mfg. Co., Waterbury, Conn.

Vinyl Resins

Gives information on company's general-purpose resins, lattices and compounds, including Estane polyurethane materials, physical properties of abson materials, and hi-temp Geon, and more. (20 pages) Advertising Dept., B. F. Goodrich Chemical Co., 3135 Euclid Ave., Cleveland 15, Ohio.

Outdoor Signs

Discusses advantages of plastic ease of forming, weather-

ability, light transmission and dif-fusion properties—for outdoor signs, includes design information plus vacuum forming and subplus vacuum forming and sub-sequent fabrication techniques. sequent fabrication (46 pages), Eastman Chemical Products, Inc., Kingsport, Tenn.

Stand-Off Fasteners

Describes all types of stand-off fasteners used to support tubing, wire bundles, conduit, equipment and instruments. Gives data such as how to select fasteners, weight listing of American JEDEC- Alliance, Ohio.

Transistor Manual

Contains easy-reference data on transistors and application on transistors and application ing those for folding cartons, principles including silicon controlled rectifiers, power supplies, and palletizing. Catalog No. transistor specifications, switching circuits, tunnel diode amplifiers, hesives Div., Armour Alliance Intest circuits, etc. Features current dustries, 16123 Armour St. N. E.,

registered transistor types with Aids to= interchangeability information.

Price: \$1.00. (339 pages).

Semiconductor Products Dept., General Electric Co., Kelley Bldg., Liverpool, N. Y.

Adhesives

Details physical and chemical properties, features, and applica-tions of five adhesives for paper converting and packaging, includ-ing those for folding cartons,

Purchasing

Tire Guide

This easy-to-read annual provides tire sizes and proper air pressures for all American cars, 1946–1961, and all popular foreign car models. The guide contains complete passenger and truck comparative tire level charts, current price lists, load and inflation charts for both passenger and truck tires, and other features. Copies of the 80-page book are \$2.00 each and are available from Elgar Co., 2 E. 23rd St., New York 10, N. Y.

Your local Moline Chain OFFERS MORE

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Your Moline distributor knows the power transmission business from A to Z, usually has the right answer at his fingertips because his engineering staff has the technical know-how to solve any problem. When you call your Moline man, you know you're talking to an expert and you can rely on his advice and knowledge.



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You'll save precious time when you call on your local Moline distributor for power transmission equipment. You don't have to shop around because he normally carries in stock components of every description. His inventory includes bearings, reducers, clutches, couplings, pulleys, takeups . . . virtually any item needed for efficient power transmission.





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H. J. JUNGBLUTH (r), dist. 3 NAPA p. and G. E. Andrews, Barnes Drill Co., chat at Rock River, III., meeting last month while .



ASSN. OFFICERS HOLD THEIR OWN CONFAB: (I-r) F. D. Sculley, Atwood Vacuum Mach. Co., pres.; H. R. Wilde, E. D. Etnyre & Co., 1st v.p.; E. E. Johnson, H. D. Hume Co., 2nd v.p.; J. G. Fair, Modern Metal Products, treasurer, B. C. Kays, N. W. Steel & Wire, secretary.

Lady P.A. Warns Sister Executives: Don't Rely on Femininity to Get Ahead

and professional contacts by relying on feminity. That's the advice the new president of the Women's Div., Detroit Purchasing Agents Assn., has for lady

Mrs. Betty H. McDonald, pur-chasing agent, Supply & Con-tracting Div., Owens-Corning Fiberglas, an outstanding contributor to the success of the Women's Div., believes the female P. A. should "look ob-

Detroit-Don't make business jectively toward issues as a person, not as a woman, ar associate acceptance will follow

Don't play favorites, she added, but "give recognition to other women because of abilities not

because they're the same sex."

The division was established in 1954, after a handful of women P.A.'s tried to join the Detroit association, only to find the constitution made no provithe constitution made no provision for female members. By-laws were drawn up and 28 women became charter members. Today membership totals 35.

Members are proud of the fact that segregation has not turned them into a frivolous social club. "Quite the contrary," one member explained. "Three quarters of our members are



MRS. BETTY H. McDONALD

married women, with children, who devote nonworking hours to being with their families. Therefore, any activity outside the home must be worthwhile."

Fordham University Sets Two Purchasing Courses For Beginners, Veterans

New York—Two purchasing courses will be offered by Fordham University at its Bronx campus, beginning Feb. 2.

The course, "Fundamentals "Advanced "Advanced

The courses, "Fundamentals of Purchasing" and "Advanced Purchasing Techniques" will both be given on 10 successive Thurs day evenings, from 7:30 to 9:00 P.M.

The fundamentals course will The fundamentals course will be taught by Miss Alice C. Hodnett, chief of the procurement and traffic branch, New York Operations Office, Atomic Energy Commission. It will include a survey of purchasing principles and techniques.

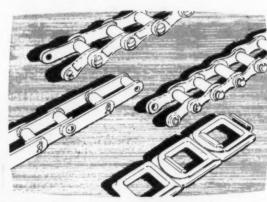
Lewis R. Eagleston, director group purchasing service, Federation of Protestant Welfare Agencies, will direct the advanced course. These sessions will provide the P. A. with a case study approach to negotiating

approach to negotiating techniques, purchase of capital equipment, value analysis, application of automation techniques etc. niques, etc.

State P.A. Lists Drugs

Baton Rouge, La.—State Purchasing Officer E. Guy Martin has developed a prelisted purchase requisition" covering 1,683 drug items, complete with de-scriptions and prices. The list, he says, is avialable to other state purchasing agents on request.

Distributor than "order taker" service...



He carries a large stock of Moline chains, sprockets and buckets.

Your Moline distributor can supply you immediately with chain, sprockets, buckets, sheaves and attachments for any industrial conveyor, elevating or power transmission application. He is always available for help when you need "specials" in malleable chain and attachments because Moline has long been a prime source for OEMs when special chain is required.



He stands ready to give you immediate delivery from stock.

You can rely on fast service when you call your Moline distributor. Tremendous inventories on hand (many distributors stock up to 7,000 power transmission and conveying items) enable him to fill orders and have them on their way within 24 hours. So depend upon your Moline distributor for all your power transmission and conveying supplies and be sure of conscientious service and quality products.

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IBAMA, Montgomery, Alabama Bearings Co., Standard Elect, Mach.; Mobile, Bearing & Trans. Sup., Turner Sup. Co.; Decatur, H & H. C. Birmingham, Industrial Sup., Inc.; Shetfield, Marlin Sup. Co.; witon, Pensacola Mill Sup. Co.

Brewton, Pensacola Mill Sup. Co.

ALASKA, Ketchikan, Northern Mach. Works, White Motor Co.; Sitka, Sitka Engine & Equip. Co.; Wrangeli, Wrangeli Mach. Works.

ARIZONA, Flagstoff, Arizona Sup. Co.; Phoenix, Seamon Bearing Co.: ARIZEMA, Flagstaff, Arizona Sup. Co.; Phoenix, Seamon Bearing Co.; Tucson, Seamon Bearing Co.

Tucson, Seamon Bearing Co.

ARKANASA, Little Rock, Allied Arkansas Bearing Co., Mill & Mine Sup.

Co.; Et Dorado, American Sup. Co.; Pine Bluff, Arkansas Mill Sup. Co.; Fort Smith, Boal Fdry. & Moch. Co.; West Helena, & S. Keitly Co.

CALIFORNIA, DISA MECR. Co; West Helena, A. S. Kelly Co.
CALIFORNIA, DISA MCRELS, IV. MINNEE CHAIN A GEAR CO; SAN
FRANCISCO, CHARLES A. FOWLER CO, Tereno, Gordon Equip. Co., George
M. Philpott Co., Horth Sacramento, Fred. E. Barnell Co., Stockton, Stockton Bearing Co; Stockton Iron Works, Standard Iron Sup. Co., Lymwood,
Best Chain Co., Crescent City. Crescent City Mach. Works; El Centro,
W. H. Douthitt; San Leandro, Monarch Corp., Hemet, Steve's Auto Parts;
Arcata, Reliable Hardware.

COLORADO, Denver, Allen Bearings Sup., Power Trans. Inc.; Grand Junction, Bearings & Power Trans.

RIBA. For? Pierce, Atlantie Equip. & Sup. Co.: Ocala, M. A. Busbee, Jacksonville, J. G. Christopher Co., C. W. Farmer Co., Georgia Sup. Parker, Helms & Langston, Inc.: Tampa, Ellis Edwin Sup. Co. Busberry, Florida Conveyor & Equip. Co.; Milam. Gondas J., Wintler Naver, Naven Mill Sup. Co., Inc.: Gersacola, Industry, Vinder Naver, Naven Mill Sup. Co., Portando, Mill Sup. Inc.; LakeLos Dept. Co., Pensching, Mill Sup. Co., Polando, Mill Sup. Inc.; LakeLos Dept. Co., Pensching, Mill Sup. Co., Polando III, Palame Mach.
Los Co.

eo sup. Co.

GEORGIA, ATLANTA, R. C. WATKINS ALLIEB COMPANIES, INC., Industrial Service Co., Southern Beiling & Trans, Augusta, Augusta Mill Sou. Co., Richmond Sup. Co., Tools Op. Co. Delano, Botton Bearing Service. Nacco

KENTUCKY, LOUISVILLE, FRED WENLE, Albert B. Crush & Co., Butler Sup. Trans. Co., Louisville Mill Sup. Co.; Hopkinsville, Cayce Mill Sup.

Co.

MASSACHUSETTS, QUINCY, UNION CEAR AND SPROCRET CORP.; Needbum Height, Bedrox Coup. Co., Cambridge, Bellamy-Robber, Inc.,
Observed, Co., Co., Cambridge, Bellamy-Robber, Inc.,
Observed, Berlin Corp. Lewis D. Co., Sydro-Machanical Sup., Northern Indust.

MICHELAN, BERMINGHAM, GEORGIE E. SIKKB; Adrian, Beal Sup. Co.,
Sagman, Beckley Caulb. Co., Hydro-Machanical Sup., Northern Indust.

Paul Horst Co., Majestic Stamping Co., Mr P. Drives Co., Production
Industries, Republic Rubber and Sup. Co., Tool Sup. Co., Fouerer, Wifton,
Grand Rapids, Mackay Indust. Sales, Michigan Bearing Co., Schuster
Equip. Co. Inc., Kafamazoo, R. M. Sorlie Co.; Hazel Park, Wetton Rubber

& Abbetisto Co.

Eiec. Molor.

MISSISSIPP, Jackson, Harper Fdry. & Mach. Co., Mississippi Fdry. & Mach. Greenville, Jackson Sup., Inc.

Mach., Greenville, Jackson Sup., Inc.

MISSOURI, KAMASA CTTY, BAVID M. BBATRIGHT. S. D. Calloway Co. Inc., Industrial Bearing & Trans. Co., Noelling Stell Sales. Corp., Kansas. City Rubber & Betling, Lebanon Nuc. Co., 31, Soseph, Wilfbagen Mississippi Mississ

NEVADA, Las Vegas, Reliable Bearing & Sup.

NEW JERSEY, Plaintield, R. M. Barwise, Inc.; Fair Lawn, Service Power Trans. Co.; Trenton, Trenton Bearing Co.

Trans. Co., Trenton, Trethon Bearing Co.

NEW MERICO, Albuquerque, Harry Cornelius Co.

NEW MERICO, Albuquerque, Harry Cornelius Co.

NEW MERICO, Albuquerque, Harry Cornelius Co.

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Bearing Distra, Bochester, H. M. Cross & Sons Brons, Duane Trans.

Equip. Corp., Riverhead, Eastern Weding Co. Hicksville, Long Island

Equip. Corp., Riverhead, Eastern Weding Co. Hicksville, Long Island

Equip. Corp., Syracuse, Bearing, A. Berry, Driver, Inc., Syracuse,

Emirica, Harold Van Ausken Mill Sop., Lockbort, Ward Bros, Mill Sop. Co.

NOBTH CARBOLINA, Lenoir, Blue Ridge Hardware, & Sup. Co., Etalesville,

Byyand Sup. Co., Tri-State Distris, Inc.; Castonia, Bryand Sup. Co., Gatonia Mill Sup. Co., Rocky Mount, Carolina Mach. & Sup. Co., Lenoir, Mill Sup., Carolina Mach. & Sup. Co., Mer. Berry, Co., H. S.,

Loc., Minston, Carolina Mach. & Sup. Co., Mer. Berry, Co., H. S.,

Loc., Withington, General Sup. Co., Mill & Contractors Sup. Co., Willia,

Locky, Millia, Co., Co., Sup. Co., Mill & Contractors Sup. Co., Willia,

Locky, Millia, Contractors Sup. Co., Mill & Contractors Sup. Co., Millia,

Locky, Millia, Co., Co., Sup. Co., Mill & Contractors Sup. Co., Millia,

Locky, Millia, Co., Co., Sup. Co., Sup. Co., Sup. Co., Millia,

Locky, Millia, Co., Co., Sup. Co., Sup. Co., Sup. Co., Willia,

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Locky, Millia, Co., Co., Sup. Co., Sup. Co., Sup. Co., Willia,

Locky, Millia, Co., Co., Co., Sup. Co., Sup. Co., Sup. Co., Willia,

Locky, Millia, Co., Co., Co., Sup. Co.

NORTH DAKOTA, Fargo, Empire Sup. Co.; Jamestown, Empire Sup. Co.; Bismarck, Empire Sup. Co., Grand Forks, Grand Forks Sup.; Minot, Minot Sup. Co.; Williston Sup.

ONIG. Cincinnati, Cincinnati Trans.; Cleveland, C. J. Edwards Co.; Toledo, Gear Prod. Co., Toledo Belting & Sup.; Columbus, White-Orr Co.; Canton, Wilhoft Indust. Sup. OKLANOMA, Tulsa, Allied Bearings Sup., Clark Bearing & Sup. Co.; Chickasha, Chickasha Gin & Mill Sup.; Oklahoma City, Dagwell-Dixie Co., Equipment Sales, Power Equip, Inc.; Muskogee, Pate Indust. Sup.

TSBURGN, CNARLES R. SIMMONS, Banbury Equip. Corp., Harliey-Rose, Ritter Engr. Co.: New Rensington Burrell Indust. Sup.: Ridgway th American Indust. Sup. Inc., Lipondown, Trustate Mine Sup. Co.

VIRGINIA, Bassatt, Blue Ridge Hardware & Sup. Co.: Martinville, Blue Ridge Hardware & Sup. Co.: Martinville, Blue Ridge Hardware & Sup. Co.: Lynchburg. J. C. Ferebee Co., Ferebee-John son Co., Inc.; Ropanoke, Graves Humphreys' Inc., Waynesboro, Mize Sup. Co.; Petersburg, Tom Norton Co.; Richmond, Southern Railway Sup. Co.; Norfolis, Taylor Parker Co., Henry Walske

MUNICONEW, OF CHEEN BY, Libert Bearing, Middler Sup. Co. WISCORSIN, Green Bay, Libert Bearing, Middler, Richard E. Ela Co. Waussu, Sjöberg Indust, Sales, Minasukee, Guupment Specialty Co. CAMABA, Nancawery, Victicia, Western Equipment Ltd., Pittish Columbia, Bennetts, Ltd., Okanagan Equip, Ltd., Alberta, Electrical Ind. Ltd., Sakatchewan, Bearing & Trans. Supply, Tractor Repair Parts Co., Manitoba, Cuthbert Co. Ltd.

This Changing Purchasing Profession...

tion of E. F. Gormsen, director of pur-chases to staff level at Chevrolet Motor Div., General Motors Corp., nine other purchasing personnel have been promoted.

E. J. Furbacher was advanced from central office purchasing agent to assistant director of purchases.

G. B. Ford has been named general purchasing agent, central office. R. A. Kraft, purchasing agent at the Flint V-8 engine plant, succeeds Ford as purchasing agent, Detroit Gear & Axle and Forge plants. C. S. Wagner, assistant purchasing agent at Chevrolet-Flint Manufacturing, takes over Kraft's former post.

K. V. Daniels, assistant purchasing agent in central office, has been promoted to general purchasing agent-field operations. C. C. Clark, purchasing agent at the Chaurelet Engineering Center in War. the Chevrolet Engineering Center in War-ren, moves into Daniels' former post.

F. Gormsen, director of pur-taff level at Chevrolet Motor

L. A. Doyle, divisional buyer in central office, becomes purchasing agent at the Engineering Center in Warren.

G. R. Pamerleau becomes assistant purchasing agent in central office at Detroit. H. L. Deem, divisional buyer in central offices, succeeds Pamerleau as purchasing agent at Chevrolet-Muncie.

Marshall E. Munroe has joined Min-neapolis-Moline Co., Hopkins, Minn., as director of procurement. He had been general purchasing manager, North American operations, Massey-Ferguson, Ltd., Toronto, Ont.

O. L. Polson was made domestic purchasing supervisor for Gulf Oil Corp. with headquarters at Houston. Formerly associate director of purchasing at the company's general offices in Pittsburgh, he will guide purchasing activities for the domestic operating departments now concentrated in Houston.



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O. L. POLSON

George C. Mercer retired recently as director of purchasing, P. R. Mallory & Co., Inc., Indianapolis, after 29 years with the firm. Mercer served as president of the Purchasing Agents Assn. of Indian-apolis during 1939-40 and as NAPA District 4 vice president, 1945-46.

H. B. Princhett has been elected to the board of directors of Brown & Williamson Tobacco Corp., Louisville, Ky., and takes on the new title of purchasing director. He had been purchasing manager since 1953. Princhett is a past president of the Purchasing Agents Assn. of Louisville and was a contributor to the McGraw-Hill Purchasing Handbook.

Richard K. Sampson joined the ad-ministrative staff of Gibraltar Steel Corp., Buffalo, N. Y., where his responsibilities include both purchasing and selling. He had been purchasing agent for Rigidized Metals Corp., Buffalo.

Richard E. Johnson was named assistant purchasing director, American Steel & Wire Div., United State Steel Corp.,

Donald W. Bitterman has taken the post of purchasing agent, Fisher-Price Toys, Inc., East Aurora, N. Y. He formerly was a production control expediter and buyer with Linde Co., Tonawanda,

Malcolm F. Hurd was appointed buyer for Strong Cobb Arner of Canada, Ltd., Fort Erie, Ontario. Hurd, who previously served in production, planning and pur-chasing posts at Chempac, Ltd., Toronto, will handle all purchasing formerly done by SCA's Buffalo purchasing office.

Obituaries

Gaston Givaudon, 58, purchasing agent for the Franciscan Hotel, Albuquerque, N. M., died Dec. 25.

Herbert B. Fox, Sr., 65, retired director of purchases, E. F. Houghton & Co., Philadelphia, Pa., died Dec. 28.

Henry Knox Sander, purchasing agent for Spaulding Associates, Seattle, died Dec. 21. He was 69.

In The World of Sales . . .

ager for components and systems. He was formerly with Consolidated Electrodynamics Corp.

A. J. Slosser will head the newly developed Railroad Adhesive Sales Dept., Industrial Div., Armstrong Cork Co., Lancaster, Pa. E. W. Jones succeeds him as manager of industrial adhesive sales.

E. C. Henning has been given the post of manager of western regional sales, Brown Trailer Div., Clark Equipment Co., Michigan City, Ind. He was formerly with Hi-Lo Truck Corp.

Theodore R. Sheron was given the post of sales manager, Hitemp Wires Co., divi-sion of Simplex Wire & Cable Co., West-

Paul Fillinger was named sales and marketing manager, Electro-Glass Laboratories, Portland, Ore.

Robert Price has been promoted to assistant to the director of replacement sales, Electric Autolite Co., Toledo.

Robert H. LeSage has been promoted to assistant product sales manager, "Pop" Rivet Div., United Shoe Machinery Corp. Shelton, Conn. He succeeds Jack H. Schofield, who was recently elevated to product sales manager.

Jeffrey T. Walkden has joined Atlantic Steel Co.'s Warehouse Div. as stainless and aluminum products sales manager, Atlanta, Ga. He was formerly with Peter A. Frass & Co.

Chester F. Giermak was made sales manager, Eriez Manufacturing Co., Erie,

Henry E. Wessel has joined AviSun Corp., affiliate of American Viscose Corp. and Sun Oil Co., Philadelphia, as manager of sales planning. He was formerly with Stauffer Chemical Co.

Edward F. Harder was promoted to sales manager, industrial Products, west-ern region, California & Hawaiian Sugar Refining Corp., Ltd., San Francisco. Blase Mathews will succeed him as manager-industrial products sales, Northern California.

Charlton F. Johnson has been ap-pointed general sales manager, Spreckels Sugar Co., San Francisco, and Chris A. Heimbigner has been made manager of the company's Southern California sales office, Los Angeles.

James O. Johnson was named director of sales promotion and advertising, Buchanan Electrical Product Corp., Hillside, N. J., subsidiary of Elastic Stop Nut Corp. of America.

J. W. Moffett has been given the post of manager of chemical product sales, Kaiser Refractories & Chemicals Div., Kaiser Aluminum & Chemical Corp., Pittsburgh, Pennsylvania.

Frank F. Goosmann has joined Jones & Laughlin Steel Corp., Stainless and Strip Div., Detroit, as manager of architectural sales. He was formerly with Kawneer Co.

Arthur G. Witt was promoted to general sales manager, Precision Castings Co., Cleveland.

Richard P. Pearson has been elevated to assistant sales manager, Risdon Mfg. Co.'s Wire Goods Div., Naugatuck, Conn.

John Stinson was appointed sales man-

Hal S. Davis has joined Packard Bell ager, Technicraft Div., Electronic Specialty Co., Thomaston, Conn., with full Electronics, Los Angeles, as sales man-responsibility for sales in the U.S. and Canada.

> Warren R. Baughman has been advanced to sales manager-permanent mag-nets, Indiana Steel Products Div., Indiana General Corp., Valparaiso, Ind.

> William H. Wheeler was made general sales manager, Construction Equipment Div., Worthington Corp., Holyoke, Mass.

> James D. Helm has been elevated to eastern regional sales manager, General Electric Co.'s Computer Dept., Phoenix.

If you use stainless steel plate



this new booklet on Carlson services in stainless steel gives you worthwhile facts!

This new Carlson Booklet, "Producing Stainless Steels . . . Exclusively," documents a unique, specialized service. Fully illustrated, it includes detailed sections on stainless steel plates, heads, forgings, special shapes, and other stainless products manufactured by Carlson.

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G. O. CARLSON, INC.

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Washington State Eyes Bid Changes

Seattle—The Washington Public Utility Districts Assn. has opened a campaign to liberalize

state laws regulating purchasing.
The association at its annual meeting said it would seek legis-lation at the 1961 session of the state legislature to bring about five major changes in

 Boost the present bid-call ceiling of \$5,000 to permit a district to purchase materials and equipment up to \$15,000 without calling for bids.

• Reduce the present 30-day bid period to 15 days.

· Allow award of contracts 10% in excess of estimated costs of materials and labor instead of the present system allowing only those bids below an estimate.

• Permit a district to reject all bids and do the work itself, if estimated costs are lower than the lowest and best bid received or if no bids are received by the district.

◆ Allow districts to secure extra materials and perform extra work up to 10% of the original contract, instead of limiting them to a total of \$30,000, as at present

Governmental Purchasing Briefs

Central Purchasing

Dayton-A central purchasing plan has been adopted for Mont-gomery County to coordinate nearly \$700,000 worth of purchases annually.

All buying for the county will be channeled through the purchas-ing agent instead of being bought separately by the various county agencies. The P.A. has yet to be

County commissioners hope to get more for the taxpayer's dollar

better control over expenditures,' said Commissioner Harry J. Kie-

Department heads will be given certificate of \$100 or \$200 to cover small or emergency items, and will risk personal liability if they make purchases without a fiscal certificate.

Mass. Saves \$35,000

Boston - The Massachusetts under the new procedure, but purchasing department reports

"the main thing is we will have saving an estimated \$35,000 on better control over expenditures," annual gasoline contracts by having two contracts, one for delivery faber, member of the three man to state vehicles at service sta-commission.

state-owned pumps.

Drivers of state vehicles must use only regular gas, covered by the service station contract. Use of premium gas is restricted to special agencies, such as the state police, and delivery is made at state pumps.

Open-End Contracts

Carson City, Nev.-Nevada is using open-end contracts to supply autos to state government agencies in 1961.

The contract is divided among three dealers. One will provide standard six-cylinder Chevrolet sedans, a Ford dealer will handle optional equipment such as eight-cylinder engines and automatic equipment, while a Studebaker dealer will provide compacts. The state Board of Examiners will decide whether state agencies will be allowed extra-cost equipment.

Back Strong Agency

Dallas—The state Legislative Council audit committee has come to the defense of the state's central purchasing agency. The committee has asked purchasing officials to recommend changes in state law to strengthen the agency, which has been criticized by some legislators. An attempt to abolish the group is anticipated in the next legislative session.

THEY SAID:

"You'll Lose Your



If you try to draw and form this valve body from .115 brass strip. Several experi-enced fabricators looked at the prints and said: "No thanks."

ETASCO produced the part at low cost — AND HELD THE TOLERANCE of .003

You, too, might profit by sending your prints for a quote by:

ETASCO°

EASTERN TOOL & STAMPING CO., Inc.

where America's first essful iron works is loc



Why? The customer's production schedule may have changed suddenly. Perhaps quick delivery is needed to repair a vital piece of equipment. Whatever the reason, the customer knows he can count on Carlson for exceptional service. For Carlson is accustomed to producing and delivering, fast, a wide variety of high quality stainless steel products.

Specialized Carlson service is as near to you as your phone. Call or write for prompt action. The phone number: DUdley 4-2800.

G.O.GARLSON Inc.

Producers of Stainless Steel

144 Marshallton Road THORNDALE, PENNSYLVANIA District Sales Offices in Principal Cities



PLATES . PLATE PRODUCTS . HEADS . RINGS . CIRCLES . FLANGES . FORGINGS .
BARS AND SHEETS (No. 1 Finish)

Here's your weekly guide to . . .



Typewriter Stand

Provides Solid Base

Stand's tubular steel and die-drawn construction provides solid support for office machines. Snag-free edges, large rubber casters, and full-length piano hinges are other features. Other stands offer a variety of finishes, colors,

Price: \$15.90 to \$33. Delivery: immediate. Luxco, Inc., LaCrosse, Wis. (PW, 1/16/61)



Tripod

Supports Hoist

Tripod with telescoping legs (which adjust separately) serves as a hoist support. Free-swiveling eyebolt hangs plumb from head and avoids twist and strain. Six models offer height adjustments to 17 ft. 3 in., and capacities to 9,000 lb. Base plates on legs adjust to angles.

Price: From \$469. Delivery: 2 wk.

B. E. Wallace Products Corp., Exton, Pa. (PW, 1/16/61)

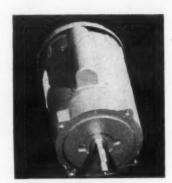


Variable Speed Belt

Resists Pulley Strain

Belt's design and construction withstands intense squeezing of pulley sheaves and notching gives ample flexibility without distortion from small pulleys Top widths range from % in. to 3 in. with over-all lengths from 26.4 in.

Price: \$3 to \$60. Delivery: immediate. Lovejoy Flexible Coupling Co., 4949 W. Lake St., Chicago, Ill. (PW, 1/16/61)



Motor

Delivers Fractional HP

A.c. motor is available in 8 hp. ratings from 1/20 through ¾. Capacitor-start, split-phase, and polyphase units come in frame sizes 48 and 56. Open-protected and explosion-proof are available.

Price: \$25.50 (1/16 hp.) to \$211.45 (3/4 hp.,

explosion-proof). Delivery: immediate.
Reliance Electric & Engineering Co., 24701
Euclid Ave., Cleveland 17, Ohio. (PW, 1/



Potting Compound

Protects Electronic Parts

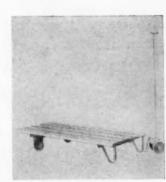
Clear potting and embedding compound gives flexible cushioning protection of elec-tronic parts and assemblies against corona, moisture, and other environmental hazards. It cures in 16 hr. at 70C. Useful temperature

range —65C to 175C.

Price: \$10.50/lb. Delivery: 1 wk.

General Electric, Silicone Products Dept.,

Waterford, N. Y. (PW, 1/16/61)



Movable Skid

Saves Load Rehandling

Jack handle lifts end of two-wheeled skid for easy maneuvering. One jack services several skids. Loads may be left in place for quick mobility and need not be unloaded and rehandled.

Price: \$20.25 to \$24.75 (jack) and \$26.05 to \$36.25. Delivery: immediate.

Nutting Truck & Caster Co., 1201 W. Division St., Faribault, Minn. (PW, 1/16/61)



Mop

Covers Greater Area

Metal clamp permanently holds mop head to act as buffers. This gives a spread 1½ in. greater than ordinary mops. They are available in 5 weights from 12 oz. to 32 oz.

Price: \$6.05 (12 oz.); \$9.50 (20 oz.); \$14.45 (32 oz.)

(32 oz.). Delivery: immediate. Pettett Mfg. Co., P. O. Drawer 431, Miami, Okla. (PW, 1/16/61)



Lifting Hook

Engages Loads Automatically

When device is lowered by hoist or crane onto a load, cam automatically spreads the hook's plates. Similar cam operation disengages after repositioning the load. Three models have tonnage capacities of 4½, 4¾, and 6½.

Price: \$44 to \$55. Delivery: immediate to

4 wk.

The Bi-Rail Co., 20050 Livernois Ave., Detroit 21, Mich. (PW, 1/16/61)



Paper Cutter

Uses Motor Only for Cut

Small press size paper cutter is available in two models with blade sizes of 225% in. and 28½ in. The motor runs only in making the actual cut. The knife delivers 30 strokes per minute and returns automatically after each cut. Front panel contains all operating buttons.

Price: \$1,495 and \$1,950. Delivery: immediate

Michael Lith Sales Corp., 143 W. 45th St., New York 36, N. Y. (PW, 1/16/61)



Drive Tensioner

Fits Anywhere on Shaft

Universal drive tensioner, ideal where bolting is impractical, locks into position at any point on the shaft to take up slack in chain and belt drives. Exact tensioning is assured by the arm which rotates and locks at any point in a 360-deg. arc.

Price: \$12. Delivery: immediate.

Brewer Machine & Gear Co., 1441 N.

2nd St., St. Louis, Mo. (PW, 1/16/61)

New Products

Another PURCHASING WEEK service: Price and delivery data with each product description.



Adhesive Applicator

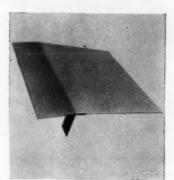
Regulates Flow by Pushbutton

Push-button control on brush gives exact regulation of adhesive flow. Tank dispenses adhesive of average viscosity at 20-lb. pressure. Air regulator sets pressure as desired. outlets allow as many operators to work from

Price: \$114 to \$134.50 (depending on brush

size). Delivery: immediate.

B. B. Chemical Co., 784 Memorial Dr.,
Cambridge 39, Mass. (PW, 1/16/61)



Dock Board

Speeds Loading

Aluminum dock board is easily positioned and has locking leg on underside to drop down between truck and platform as a secure anchor. Seven sizes have axle load capacities from 1,900 lb. to 5,000 lb. Beveled edges save wear on tires.

Price: \$49.75 (4 x 2 ft.) to \$92 (4 x 4 ft.). **Delivery:** 1 to 2 wks.

Jarke Mfg. Co., 6333 Howard St., Chicago 48, Ill. (PW, 1/16/61)



Abrasive Belts

Conform to Beveled Crowns

Abrasive bands and belts take any degree of crown when run on inflatable rubber drums. They are available, with aluminum oxide abrasive, in grits 40 through 180, in 3 sizes: 2 in. x 95% in., 2½ in. x 15½ in., and 2 in. x

Price: \$30.24/100 (2 in. x 95/8 in. in 100 grit or finer). Delivery: immediate.

Behr-Manning Co., Troy, N. Y. (PW, 1/



Grinder

Delivers High Power

Heavy-duty grinder and buffer gives high power at a low noise level. Maximum capacity is an 8-in. organic wheel or 6-in. wire brush at 4,500 rpm. All models have an improved hex stationary wheel guard is standard equipment.

Price: \$285. Delivery: immediate.

Buckeye Tools Corp., 5003 Springboro Pike,
Dayton 1, Ohio. (PW, 1/16/61)



Vapor De-Greaser

Requires No Piping

Air-cooled vapor degreaser is electrically heated by 115 v. a.c. power. Needing no piping, it is easily portable for use around the plant. Vaporizing and condensing process in the cooling zone assures constant freshly distilled trichlorethylene solvent.

Price: \$145. Delivery: under 1 wk.
Beta Engineering Co., 2924 Quenby Rd.,
Houston 5, Texas. (PW, 1/16/61)

This Week's-

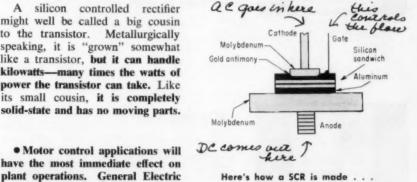
Product Perspective

JANUARY 16-22

SILICON CONTROLLED RECTIFIERS (SCR), just making their industrial debut, are a good bet to take over half-a-dozen control jobs. Most promising applications: motor control, light dimming, welding control, frequency conversion, and power control and switching.

SCR does the same job as a thyratron or motor-generator set-but it has no parts to wear out, takes less space, and in many cases costs less. The control task is a by-product of its primary job—changing alternating to direct current. An extra "gate" in the SCR allows a special control voltage (similar to the grid on a vacuum tube) to regulate the amount of direct current the rectifier will allow to pass. The more current that passes, the brighter the lights-hence the dimmer application.

A silicon controlled rectifier might well be called a big cousin to the transistor. Metallurgically speaking, it is "grown" somewhat like a transistor, but it can handle kilowatts-many times the watts of power the transistor can take. Like its small cousin, it is completely solid-state and has no moving parts.



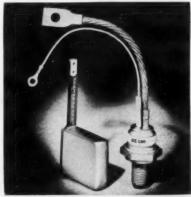
Here's how a SCR is made . . .

started delivery on its "Statotrol" line of SCR dc motor controls. First units are available in ratings from 1/20 hp to 3/4 hp. The solid state device gives smooth stepless control along with complete stopping and starting facilities. GE claims the price tag (around \$300 for a ¾ hp. unit to OEM buyers) is well under the \$400-\$500 level of conventional controls.

But silicon controlled rectifiers won't be confined to relatively low power jobs such as fractional hp. motors. GE has also just introduced a line of SCRs that can handle up to 70 amp. at up to 500 volts. The units are designed for power switching and control. The 200-v. units will sell to OEM's for \$67.50.

PRICE will be a big factor in determining the SCR's future. The units are still relatively expensive, although tags have come down as much as 90% in the three years since experimental models became

available. If the behavior of the transister price levels is any indication, SCR's will become much cheaper as volume and competition build up.



New high voltage unit is only 2 in. tall.

• Maintenance shouldn't be too much of a problem in circuits containing SCR's. They don't deteriorate in use, and dirt has no effect on the sealed unit. One caution: If supporting circuits are not carefully designed, voltage surges can be a problem. The silicon unit can handle its maximum rated voltage without any trouble, but it doesn't have much built-in reserve power to handle sudden increases in voltage (or temperature, for that matter).

Standardization hasn't progressed to the point where different makes are always interchangeable (as is the case with tubes), but manufacturers are working on this problem. Certain ratings which are available from a number of suppliers may have small, but important differences in such characteristics as turn-on time or short-time overload capacity. Each application should be checked before a substitution is made. Availability is becoming less of a problem as both control makers and local supply houses build their SCR stocks.

• Although GE was the first company to bring the Silicon Controlled Rectifier to market, they have since been joined by Texas Instruments, Motorola, Transiston, and International. Westinghouse is currently testing several models.

Your Guide to New Products (Continued from page 25)



Has Two Answer Dials

Unit has two answer dials, one of which stores totals transferred from the other. Addition, subtraction, rounding off, and full cent conversion can be continuously shown in the memory dial by either of two keys which pro-

vide complete unit control.

Price: \$845 (9/10 capacity) and \$942.50 (12/13). Delivery: immediate.

Comptometer Corp., 5600 Jarvis Ave., Chicago 48, Ill. (PW, 1/16/61)

Flux Applicator

Cleans Aluminum Furnaces

Pressure device efficiently and conveniently applies furnace-cleaning fluxes to the walls of large aluminum furnaces. It also applies coverarge autinium furnaces. It also applies covering and drossing-off fluxes. The lance, fitted with a spreader, is inserted through the door and aimed at surfaces to be covered.

Price: \$225. Delivery: immediate.

Foundry Services, Inc., P. O. Box 8728, Cleveland 35, Ohio. (PW, 1/16/61)



Warning Light

Attaches to Traffic Cones

Light produces 8 beam c.p. with a signal life of 400 hr. Transistorized unit works on 4 "D" flashlight batteries to produce a 1/10 second flash 65 times per minute. Flag staff socket permits use of signal flag and chain hasp can be ram-set to the pavement to make

cone theft-proof.

Price: \$18.80. Delivery: immediate.

R. E. Dietz Co., 225 Wilkinson St., Syracuse,

N. Y. (PW, 1/16/61)



Induction Motor

Operates Office Machines

No. 26 frame, 3-in. induction motor is designed for office machine and similar use. 24-slot stators (instead of the usual 16) give smoother, more constant torque and quiet operation. 4-pole units are available in up to 1/20 hp. 2-pole units, up to 1/10 hp.

hp.; 2-pole units, up to 1/10 hp.
Price: \$8 to \$10. Delivery: 60 days.
Howard Industries, Inc., Dept. 31, Racine,
Wis. (PW, 1/16/61)



Switching Module

Cuts Testing Costs

Self-contained, switching module appreciably reduces the cost of life-testing semiconductor diodes and rectifiers. The power supply is capable of switching 20 amp. average d.c. at up to 1,500 PIV and incorporates the principles of simulator testing

Price: \$250. Delivery: immediate to 2 wk. Wallson Assoc., Inc., 912 Westfield Ave., Elizabeth, N. J. (PW, 1/16/61)

Consulting Firm Advises VA Teams to Put Supplier's Know-How to Use

Schenectady—"When you're trying to value analyze a part, don't overlook the technical know how of your suppliers."

That's the theory that enabled Value Analysis, Inc., a Schenectady consulting firm to cut the cost of a part 70% for acted as a spandown stand to keep the firm, to cut the cost of a part 70% for one of its clients.

Ludlow Products, Inc. had called the consultants in to help cut manufacturing

Ludlow was paying its regular supplier, Connecticut Spring, \$96.60 per thousand for the simple wire form that acted as a snapdown stand to keep the scraper from burning the table when put down while in the "on" position. Other suppliers quoted about the same price, costs of a calrod paint remover. Consultant Douglas Egan singled out a wire form on the paint remover for early cut. Here's how he went about it—



WHY DID IT COST SO MUCH: Connecticut Spring's general sales manager, James Gallagher, told Egan that specifications supplied for the stand meant a seven-step manual production process that ran the cost up to the \$95.60 per 1,000 level.



HOW PRICE COULD BE CUT: Gallagher and Egan then took the problem into the shop and discovered that if certain slight design modifications were made, the wire could be machined-formed with just one secondary operation—instead of seven.



FINAL RESULTS: The new stand (right) reduced costs to \$27.80 per thousand and, at the same time, streamlined the appearance of the scraper rest, eliminating the possibility of tipping. Production has been shifted to the new design scraper rest.



Fluorescent Fixture

Only 31/2-in Deep

Wrap-around diffuser of clear polystyrene directs and controls light. Fixture is fully enclosed, yet only 3½-in. deep. End plates are of gold anodized aluminum or enameled steel. Two-light and four-light units are available with housings in 4-ft. and 8-ft. lengths. **Price:** \$19.15 to \$40.70. **Delivery:** im-

mediate.

Litecraft Mfg. Corp., 10 Passaic, N. J. (PW, 1/16/61) 100 Dayton St.,



Portable Elevator

Conveys Materials

Elevator with double-chain drive continuously transports construction and other materials from ground to roof. Models (13-ft. and 21-ft.) can be extended by 5-ft. and 7½-ft. sections. Gas or electric motor is also available

from manufacturer.

Price: \$298 and \$399.50 (\$87 and \$136 for

extensions). Delivery: 10 to 14 days.

Hauck Mfg Co., 124-136 Tenth St., Brooklyn 15, N. Y. (PW, 1/16/61)



Dispenser

Speeds Wiring Time

Rack with 10 plastic tubes holds precut wires for 1-at-a-time withdrawal and speeds wiring time. Same tube can handle wires from cutter to storeroom to bench. Racks mount atop each other on bench top with easel stand or hang where desired.

Price: \$28. (easel, 3 racks, 30 tubes). Delivery: immediate.

Products For Industry, Inc., 1704 Summer St., Stamford. Conn. (PW, 1/16/61)



TV System

Transmits Over Telephone Lines

System transmits 400-line resolution images. including charts and sketches over a single telephone line in 60 sec. The portable system consists of slow scan camera with transmitter, and direct view storage tube monitor with

Price: \$12,000 to \$24,000. Delivery: 90-

days.
ITT Laboratories, Fort Wayne, Ind. (PW, 1/



Cutting Machine

Leaves Smooth Finish

Unit cuts "I" beams up to 6 in. x 24 in., leaving a machine-like (100 RSM) finish. Saw will cut through a 3 in. x 24 in. plate in about 4 minutes. It will also cut other metals and most plastics.

Price: \$1,885. Delivery: immediate to 4

Wallace Supplies Mfg. Co., 1300 Diversey Pkwy., Chicago, Ill. (PW, 1/16/61)



Motor Starter

Has Only 1 Moving Part

Size 00 motor starter operates with a ball-bearing-guided moving assembly consisting of the movable magnet and contacts. Rated at 2 hp., it is also available as a contactor where overload application is not required.

Price: From \$30 (From \$23 as a contactor). Delivery: immediate after Feb.

Federal Pacific Electric Co., 50 Paris St., Newark 1, N. J. (PW, 1/16/61)



Stapling Gun

Replaces Nailing

Portable pneumatic gun helps build or re-pair all types of fiber and wood crates and other containers in fraction of time needed for nailing. The high speed at which it shoots staples

into wood eliminates splitting.

Price: approx. \$200. Delivery: immediate.

Spotnails, Inc., 1527 Lyons St., Evanston,
Ill. (PW, 1/16/61)



Deburring Tool

Works With Tapper

Tool can be used with friction type tap or lead screw type to tap and deburr pipe threads in one operation. It fits taps in sizes ½ in. to 1 in. and is available for straight and tapered holes. Conical springs permit deeper tapping.

Price: \$9.80 to \$14.75. Delivery: immediate.

Vernon Devices, Inc., 481 E. 3rd St., Mount Vernon, N. Y. (PW, 1/16/61)

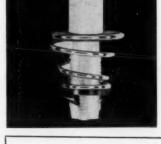


Power Supply Module

Offers Reduced Size

Unit, 8 x 5 x $3\frac{1}{4}$ in., has output voltage and current of 12 to 20 v. at 0 to 1 amp.; 26 to 30 v. at 0 to 1 amp.; or 10 to 33 v. at 0 to .75 amp. Input is 115 v. RMS \pm 10%, 1 phase, 55-400 cps. As many as 10 units can be connected in series to provide higher volt-

Price: \$88. Delivery: immediate.
NJE Corp., 20 Boright Ave., Kenilworth,
N. J. (PW, 1/16/61)



Purchasing Week Definition

Basic Types of Machine Screws

Binding Head—Rounded top with tapered sides and flat bearing surface.

Fillister Head-Rounded top with cylindrical sides and flat bearing sur-

Flat Head—Flat top with a counter-sink angle of 82 deg.

Hexagon Head-Flat or indented top with hexagonal sides and flat bearing surface.

Oval Head-Rounded top and

conical bearing surface of an 82-deg. angle.

Pan Head—Flat top rounded to cylindrical sides with flat bearing sur-

Round Head-Semi-elliptical head and a flat bearing surface.

Socket Head-Internal hexagonal socket in the head.

Truss Head-Low rounded top with flat bearing surface. (PW, 1/16/61)

P/W School for Strategists

HIS session of School for Strategists shows you a way to settle the interdepartmental conflicts that perpetually plague purchasing executives. Using Games of Strategy techniques, you'll win production schedule and inventory level arguments with the production manager.

Your object in these games, prepared by PW Consultant John M. Owen, Jr., is to determine which strategy will bring about the

most favorable outcome.

By employing new mathematical concepts—herewith reduced to a quick set of visual aids—you can achieve your object speedily and safely.

To understand how Games of Strategy are played and solved, first concentrate on the following concrete example:

SAMPLE PROBLEM

Two competing companies—Arnold Corp. and Byerson Corp.
—want to bid on a contract. They are such bitter rivals that they will thwart each other at the drop of a hat; in fact, each even thinks of the other fellow's losses as his own gains. Here is their situation:

• If Arnold bids and Byerson does not, Arnold will lose \$2,000

• If both bid, Arnold thinks he can gain \$1,000.

• If neither bids, Arnold thinks he's \$3,000 better off than Byerson.

• If Byerson bids, and Arnold does not, Arnold figures he's \$2,000 ahead.

What should Arnold do?

HOW TO SOLVE SAMPLE PROBLEM

1. Let's concentrate on just one of the opponents for a starter—Arnold. Sort his possible moves into two logical groups: 1) What happens if he bids, and 2) what happens if he doesn't. This is what you get:

| Arnold bid | ds, Byerson ds, so does | doesn't | te Arneld -\$2,000 \$1,000 | ١ |
|------------------------|----------------------------|--------------------------------|----------------------------------|---|
| Arnold do Arnold do | esn't bid, no | either does Byersonyerson does | \$3,000 \$2,000 | ı |

2. Now put the dollar value of each move in a little box (called matrix) so you can inspect the situation visually. You want to solve it from Arnold's point of view, so write Arnold's moves at the left. Like this:

| Amold Bids | - 2,000 | # 1,000 |
|--------------------|-----------------|---------|
| A rnold Doesn't | \$ 3,000 | \$2,000 |

Incidentally, whatever Arnold does is the counterpart of what Byerson does (since there are only two players), so the box above really could be amplified like this:

| | Byerson | Byenson. Bids |
|------------------|---------|------------------|
| Amold Bids | -2,000 | \$1,000 |
| Amold Doesn't | \$3,000 | \$2,000 |

3. Find the *lowest* value in each horizontal series, and the *highest* value in each vertical series. Here's what you get:

| | Byerson Doesn't | Byenson | |
|-------------------|--------------------|-----------|----------|
| Arnold Bids | \$2,000 | \$1,000 | * 2,000 |
| Annold Joesn't | # 3,000 | #2,000 | #2,000 * |
| 1 | \$3,000 | \$2,000 * | • |

4. Note that the figure \$2,000—starred for visibility—is common to both horizontal and vertical series. THIS FIGURE IS THE STRATEGIC SOLUTION TO THE PROBLEM. To put it an other way: Arnold should not bid, and Byerson should. This is the sanest settlement for both.

Now try the following two problems, using the above technique:

Problem 1

The Purchasing Department at the Slicem Blade Co. has been trying to get the Production Department to change its material specification on the plastics used in the handles of Slicem knives.

Purchasing Director I. M. Eagerbeaver feels Production has overwritten specs for the plastic and decides to challenge them to show that without such restrictions equally suitable material could be hought from alternate suppliers at lower cost.

be bought from alternate suppliers at lower cost.

But Production Manager Ole Hardshell is satisfied with existing suppliers, and doesn't want Purchasing dictating to him. However, Hardshell isn't sure top management will agree with him, and he doesn't want to be on the losing end of a fight. So he considers switching, on his own, to a substitute plastic that Purchasing had been planning to recommend.

Here are the strategies open to Production and Purchasing:

• If Purchasing challenges the specification and Production switches to the alternate plastic, Purchasing will be able to claim that Production switched because of the projected challenge. However, some of the wind will have been taken out of Purchasing's sails by Production's timely action. This a gain of +8 to Purchasing.

by Production's timely action. This a gain of +8 to Purchasing.

• If Purchasing challenges and Production doesn't switch, Production is caught by surprise, and Purchasing's campaign is well on its way to success. Score this outcome as +10 for Purchasing.

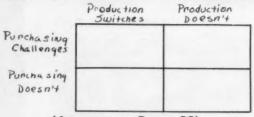
• If Purchasing doesn't challenge and Production switches, Purchasing has lowered its costs, but has passed up a chance for a feather in its cap. Score this + 5 for Purchasing.

If Purchasing doesn't challenge and Production doesn't switch,
 Purchasing has missed a good opportunity and must still bear the high plastics costs: — 10 for Purchasing.

Here's how the strategies look to Eagerbeaver:

No

| Purchasing challenges, Production switches Purchasing challenges, Production doesn't switch | Purchasing + 8 +10 | |
|--|--------------------------|-----|
| Purchasing doesn't challenge, Production switches Purchasing doesn't challenge, Production doesn't switch | 10 | |
| w, using this payoff matrix, what should Eag | erbeaver | do? |



(Answer on Page 32)

Problem II

Another gripe of Purchasing at Slicem is that Production always overstates its requirements. Since Purchasing is responsible for raw material inventory, Purchasing Director Eagerbeaver is anxious to correct the situation.

Eagerbeaver concludes that applying a flat 10% reduction to the production program might achieve the desired results. The production manager gets wind of this and considers adding 5% to his already inflated figures.

Purchasing is aware that Production is considering adding 5%, but does not know whether the 5% actually has been added as yet. Similarly, Production has no way of knowing whether Purchasing will actually go through with its 10% deflation.

This is what it boils down to:

• If Purchasing subtracts 10% and Production adds 5%, inventory is reduced somewhat. Score this as a gain of + 3 for Purchasing.

• If Purchasing deflates 10% and Production stands pat, a larger cut in inventory is achieved. Score + 5 for Purchasing.

If Production further inflates its figures 5% and Purchasing makes no change, Purchasing is stuck with excessive inventory.
 Result: — 5 for Purchasing.

 If neither department changes its usual procedure, the status quo ante prevails, and neither side scores—zero loss or gain.

Here's how the strategies look:

| | Purchasing cuts 10% Purchasing cuts 10% | Production adds 5%. Production doesn't par | Purchasing +3 | |
|-----|--|--|--|---|
| Now | Purchasing doesn't d | hange, Production adds hange, Production does trix, what would | 5%5 n'i pud 0 you do as Eagerbeave | r |
| | | Production ADDS 5% | Production Doesn't PAd | |
| | Purchasing cuts 10% | | | |
| | Purchasing Doesn't Cut | | | |
| | 1 | | | |

(Answer on Page 32)

Keeping Score

School for Strategists students may have noticed that you don't always have dollar payoffs to put into the problem matrix.

For example, the homework for this week scores the conflict in points ranging between —5 and plus 10. In these games, there's no way to put an exact dollar value on the payoff from a strategy. But you can rate the preference for one payoff over others by saying one possibility is twice as desirable as another. Thus, you can give a rating of 10 points, and the less desirable, 5 points.

Mathematicians and social

Mathematicians and social scientists have just begun to develop more accurate ways of rating strategies for interpersonal, non-dollar games. But their sophisticated methods boil down to the preference system used here.

Consolidated Freight Modernizes Entire Fleet Of Nearly 2,000 Vehicles

Menlo Park, Calif.—Consolidated Freightways is completing a fleetwide modernization and replacement program covering almost 2,000 vehicles.

a neetwide modernization and replacement program covering almost 2,000 vehicles.

More than 200 power units have been placed in the fleet, including 13 turnpike cruisers for use in double-bottom service on Eastern turnpikes. The intercity power units also include 164 long and short wheelbase sleep diesel tractors, plus several gasoline tractors and tank trucks.

Consolidated has also replaced nearly 1,000 over-the-road trailers, including dry vans, reefers, flatbeds with side racks, open-top vans, hoppers, tankers, lowbeds and a number of specialized trailers. Lengths vary from 27 ft. to 40 ft.

For intracity service 426 new units including 153 trucks, 105 tractors and 168 trailers were purchased.

Consolidated serves major markets in 32 states and in Canada

Alcoa Opens New Mill To Make Patterned Sheet

Pittsburgh—Aluminum Co. of America has put into operation a new 300-ton mill able to produce patterned sheet up to 62-in. wide.

Patterned sheet is used primarily for automobile trim, household appliances, and as interior and exterior decoration for buildings. Any appropriate aluminum finishing method — mechanical, chemical, electrochemical, painting or porcelainizing—may be applied to the sheet.

The new mill, located at the company's works in Alcoa, Tenn., can produce either coined or embossed patterns. Coining denotes a shallow pattern impressed on one side. Embossing indents a pattern throughout the entire viding a pattern on each sheet surface.

Raytheon Designs Ovens Using Radar For Heat-It-Yourself Cafeteria Meals

Waltham, Mass.—Employees | case. now can use radar to cook their cafeteria dinners on ovens developed by Raytheon Co. By placing the meal in the oven geared for medium-sized lunchrooms. The heating units turn refrigerated meals to piping-hot in seconds, eliminating the need for costly kitchen equipment.

for costly kitchen equipment.

Ralph E. Leader, manager of Raytheon's Radarange Department, predicts that by 1965 more than 3,000 plants will have electronic cafeterias to fill the void between small, vending machine lunchrooms and large machine lunchrooms and large cafeterias with on-premises cook-

The latest installation, two ovens at Nuclear Metals, Inc., of Concord, Mass., saved over an estimated 1,000 sq. ft. of kitchen and storage space. Earlier inand storage space. Earlier installations have indicated that the system is self-supporting, letting cafeterias operate without subsidies. Operational cost of each oven is about 50¢ a day.

The speed at which the units

heat with microwave energyvery high radio frequency— makes it practical for diners to heat their own meals.

employee selects a precooked meal, packaged on a tray-like dish in a transparent envelope, from a refrigerated display

West German Company Develops Scale to Type Invoices While Weighing

Zurich-A West German firm has developed a scale which permits bills to be typed simul-taneously with the weighing.

The scale, located in a shipping room, transmits weights for auto-



TRANSMISSION: AUTOMATIC Scale weighs merchandise, simultaneously transmits weight to invoicing typewriter to speed bill-ing and shipping procedures.

matic entry on the invoice. Using a keyboard at his side, the scale operator flashes the customer number on a panel light before the invoicing clerk. With a companion keyboard, he then transmits the merchandise code for

automatic entry.

Bizerba-Werke, Wilhelm Kraut
KG, of Balingen-Wuertt, developed the scale for meat proces-sors to speed the dispatch of shipments to branch stores and retailers.

Filtors, Inc., Buys

Port Washington, N.Y.—Fil-tors, Inc., manufacturer of electrical relays, has purchased Seal-a-Metic, a Paterson, N. J., maker of glass-to-metal seals for the electronic industry.

color-coded matches one of the four timer buttons on the front of the oven.



EACH EMPLOYEE IS HIS OWN COOK with radar heating ovens which prepare pre-cooked meals in seconds. Color-coded tapes on packages correspond with automatic timers which heat meals "to order."

'Hovercraft' Ready to Go

London-Britain expects to inaugurate commercial flights of 'Hovercraft' vehicles sometime in 1961. The new craft travels over water or land on a cushion

At least four British firms are working separately under contract to produce the vehicles. One of the prototypes weighs 28 tons

and can carry 68 passengers at 70-knot speeds.

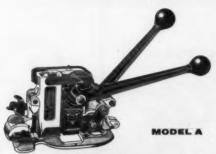
A commercial "hovertruck" under development will carry loads up to six tons, government officials said. Other adaptations include harbor ferry craft, cattle transports, and buses.

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- · Manual single-stroke sealing and
- Automatic seal feed magazine holds
 75 seals



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- · Manual single-stroke sealing and
- Automatic seal feed magazine holds
 75 seals



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Foreign News in Brief

Automatic Lamp Switch

Tokyo—Nippon Selen Co. has developed an automatic lamp switch which it hopes to market in the United States. Two models, one for indoor and one for outdoor use, will be sold under the trade name AL-Switch. Nippon Selen expects to export the indoor switch. PM-301.

port the indoor switch, PM-301, for \$2.10/unit (on consignments of more than 1,000 units) and the outdoor switch, PV-302, for \$2.33/unit.

\$2.33/unit.

The indoor unit switches on when the amount of light falls below 100 lux and cuts off when it rises above 300 lux. The outdoor unit goes on when the amount of illumination is in the 50-200 lux range and cuts off between 100 and 400 lux. The lux, international unit of illumination, is equal to one lumen/sq. meter or .0929 foot-candle. sq. meter or .0929 foot-candle.

Conoco Granted License

Houston-Continental Oil Co. has been granted a license by Castrol, Ltd., of London, to manufacture and distribute in the United States two of its synthetic lubricants for jet engines, Castrol 98 and Castrol 3-C. The former is designed especially for turbo-prop engines, while the latter is for use in turbo-jet applications where a lighter viscosity lubricant

Demand for the lubricants is expected to come primarily from airlines, engine manufacturers, and operators of private jet aircraft. Conoco has appointed the Lehigh Chemical Co., Chester-town, Md., as a sales agent for the two products. A joint mar-keting program will make the lubricants available early this

West Germans Open Office

Santa Ana, Calif.—Krauss-Maf-International and Ankerwerk International, West German producers of automatic plastic injection molding machines have opened joint offices for sales and service here and in Bound Brook, N. J.

Ankerwerk injection molders range in size from 1.5 to 36 oz. and Krauss-Maffei units from 36 to 120 oz. The line of plastics machinery sold by Krauss-Maffei also includes internal mixers and continuously operating double screw mixers, designed for extraordinarily high output.

French Licensed by Clark

Buchanan, Mich.—The over-seas division of Clark Equipment Co. has authorized its French licensee to begin production of the company's aluminum cargo van bodies and shipping con-

Walter E. Schirmer, president of Clark International, said the move was the first step in intro-ducing abroad the truck bodies and trailers made by Clark's Brow Trailer Div.

The licensee, Les Ateliers de Strasbourg, will manufacture cargo van kits beginning March 1 it was announced.

License German Firm

New York-The West German Escher Wyss Co. has been licensed by Clupak, Inc., to manbeen ufacture machines to produce its patented extensible paper. Wyss, a supplier of equipment to the paper industry for more than 100 years, is the fifth company to receive such a license from Clupak. Other licensees are located in the United States, Europe and Japan.

granting of a license to make the year.

paper itself to a W. R. Grace & Co. subsidiary, Sociedad Agricola, limitaded, of Peru. Initial production of the extensible paper will be in the form of multi-wall sacks, used primarily for the sacks, used primarily for the shipment of fish meal fertilizer.

Can Production Shift

Vancouver, B.C.—Continental Can Co. of Canada, Ltd., has announced plans to transfer 20% of the production of its Burnaby Clupak also has announced the plant to Edmonton early this

Canadians Broaden Tariff Protection

tion for Canadian manufacturers will be broadened under a new product interpretation by Cana-dian Finance Minister Donald M. Fleming.
"Capability to produce" rather

than actual production by do-mestic firms will be the deciding factor in applying tariff rates on

imports.

In the past, Canadian manufacturers have had to produce evidence that they were actually making a competing item in order to qualify for protection.

The electrical manufacturing

Toronto, Ont .- Tariff protec-| industries apparently will benefit most from the new interpreta-tion. John Inglis Co. of Toronto and Canadian Westinghouse Co., Ltd., already have announced a plan for the joint manufac-ture of turbo-electric generators. Since this agreement provides the facilities under the "capability to produce" interpretation, it apto produce" interpretation, it appears likely that tariff protection will be extended to include large steam units necessary for development of Canada's water power resources. All orders for such equipment have gone to overseas companies in the past.

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Write for Bulletin 3800

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This Week's

Foreign Perspective

JANUARY 16-22

Geneva-American officials remain cautiously hopeful that the current negotiations of the General Agreement on Tariffs and Trade (GATT) will bring about a significant lowering of world trade barriers.

Specifically, the U.S. hopes to win concessions on specialized chemicals, textiles, machine tools, iron and steel mill products, and automobiles. In exchange, it will seek to lower its own barriers on types of goods which are less competitive with U.S. production.

Limitations on U. S. bargaining power may reduce the size of the concessions which will be offered directly to the U.S., but it's hoped that the U.S. will benefit indirectly from conces-include plastics raw materials. sions negotiated among other countries. Under GATT's most favored nation rule, a concession extended to any member must be extended to all.

However, GATT members won't start the complicated business of swapping tariff concessions until March. This month and next will be devoted to taking a close look at the Common Market's proposed external tariff schedules. Object is to see whether, in fact, the common tariff will not be more restrictive than the average of the tariffs of the six nations of the Common Market.

Once agreement is reached—as is expected—on a fair level increased competition both do-for the European common tariff, the real tariff bargaining mestically and from imports. will begin.

London-The wave of domestic price slashes in British chemicals, which began in mid-December, has widened out to

Last week, Shell cut the price of its "Carlona" high density polyethylene from 38¢/lb. to 35¢ or 36¢/lb. (depending on the grade) and of its "Carlona" polypropylene from 47¢/lb. to 43¢/lb.

Behind the price cuts are two factors: (1) increased capacity with lower units costs, and (2)

Some British companies have been complaining that U.S. chemical concerns, trying to keep up production in the face of a weak home market, have been exporting at prices that amount to dumping. Cheap Italian chemi-cals, particularly in the detergent field, have also been giving British producers trouble.

Toronto-Domestic price increases are beginning to crop up in Canada, as industry moves to offset the recent drop in the premium of the Canadian over the U.S. dollar.

Example: International Nickel Co. of Canada, Ltd., increased the price of electrolytically refined nickel 234 ¢/lb. this raises the price to 7234 ¢ (Canadian currency).

The total drop in the premium in past month (about $1\frac{1}{2}\phi$) is expected to bring cuts in export prices in commodities which cannot absorb increases at home.

Tokyo—The Japanese machine tool industry is stepping up its drive to capture U.S. markets. Tie-ins with U.S. companies are also being planned by some manufacturers. For example:

Hitachi Precision Machinery Co. has formed a trading division, Hakko Co., to act as export agent for Japanese machine tool products to the U.S. In addition, Hitachi plans to export 4-A and 5-A turret lathes and milling machines to the U.S. next spring.

Toyoda Machine Works, Ltd., plans to export cylindrical grinders and precision boring heads here. Till recently, a technical tie-up with Gendron Co. of France made it impossible for Toyoda to export grinders to the U. S. A new contract lifts the restriction.

Mitsubishi Shipbuilding Engineering Co. has launched a drive to sell to the U.S. electric drive to sell to the U.S. electric discharge processing machines and compound machine tools produced through a technical licensing agreement with Innocenti S. G. of Italy. Company reportedly hopes to tie up with Pratt & Whitney, Inc., for sale of Innocenti-licensed products.

Santiago, Chile—A new labor contract removed the threat of a strike at Braden Copper's big a strike at Braden Copper's big El Teniente copper mine. The agreement calls for a 15% wage increase plus a bonus of 135 escudos (\$135) for the mine's 6,040 workers. The miners originally asked for a 50% increase.

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Vertical single reduction Shaft up or down Ratios: 5:1 to 70:1 Horsepowers: .062 to 150 Center distance: 5" to 12"



TYPE B

Horizontal single reduction **Bottom drive** Ratios: 5:1 to 70:1 Horsepowers: .062 to 150 Center distance: 5" to 12"

TYPE HB

Horizontal helical-worm Right angle drive Ratios: 15:1 to 355:1 Output torque: 2460 in. lbs. to 135000 in. lbs. Center distance: 31/2" to 12"

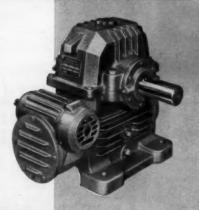


TYPE T

Horizontal single reduction Top drive Ratios: 5:1 to 70:1 Horsepowers: .062 to 150 Center distance: 5" to 12"

TYPE DB

Horizontal double-worm Parallel input and output shafts Ratios: 75:1 to 4900:1 Output torque: 4170 in. lbs. to 135000 in. lbs. Center distance: 31/2" to 12"



Write for Bulletin 3810

DE LAVAL-HOLROYD INC.

TRENTON 2, NEW JERSEY an affiliate of De Laval Steam Turbine Company

Purchasing Week

Solutions to Page 28 Strategy Games

Answer to Problem I

As P. A. Eagerbeaver, you should challenge the Production

deportment specification.

Here is what your payoff matrix will look like:

| | Production Switches | Production Document | |
|--------------------------|------------------------|------------------------|-----|
| Purchasing Challenges | +8 | +10 | +8* |
| Purchasing Doesn't | 45 | -10 | -10 |
| | + 1 2 | *10 | 4, |

The value of the game, therefore, is 8 points (starred).

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FOR

Answer to Problem II

In his further battles with Production, Eagerbeaver should choose the strategy that subtracts 10% from Production estimates.

Here is what the payoff looks

| | Production 1840 5% | Phoduction Doesn't Pad | |
|------------------------|--------------------|---------------------------|-----|
| Purchasing Cuts 10% | 3 | 5 | 3 * |
| Punchasing Doesn't | - 5 | 0 | -5 |
| - | 2.0 | | 3 |

The value of the game here is 3 points (starred), a gain for Purchasing and a loss to Production.

Few Signs of a Business Pickup

| LEADING INDICATORS | WHAT THEY PREDICT | Current Outlook | Outlook 3 mos. Ago | |
|-------------------------|---|--------------------|-----------------------|--|
| P/W Price Barometer | Imminent changes in over- all demand. | + | - | |
| P/W Overtime Index | Urgency of meeting de- livery schedules | + | | |
| Day's Supply | Future inventory policy and trends | + | | |
| Ratio: New Orders/Sales | Trend in backlogs and business activity | + | + | |
| Ratio: Stock/Orders | Effect of orders on produc- tion schedules | + | + | |
| Business Births | Opportunities available for new business | + | 1 | |
| Business Failures | Relative health of business community | • | + | |
| Industrial Stock Prices | Wall St. appraisal of business outlook | - | + | |
| Capital Spending | Spending plans of the nation's businessmen | + | + | |
| Machine Tool Orders | Business feeling about fu- ture economic climate | + | 1 | |
| Construction Awards | Future over-all construction activity | 1 | - | |
| Housing Starts | Near-term residential building activity | - | 1 | |
| Consumer Attitudes | Inclination to buy over next few months | - | + | |



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Business Barometers Indicate Continuance Of Sluggish Economy

New York—Business leaders— scanning the horizon for a shift the economic climate-are finding little to cheer about these days. Eight of PURCHASING WEEK 13 leading business barometers are pointing toward further mild slump—with most of the others in shaky neutrality. Here's what some of the major PW indicators show:

• Sensitive prices — Growing weakness (they're down 8% from last year) indicates there's little fresh demand where it countson the industrial buying level.

• Overtime—The over 20% decline over the past year means there's little pressure on plant managers to raise production.

• Day's supply—The fact that inventories relative to sales are at their highest point in over two years could mean further inventory paring ahead.

• New orders—Manufacturers' bookings, which have remained below sales now for 10 out of the last 12 months, have reduced hard goods backlogs to the lowest levels in a decade.

• Building contracts-1960 spurt is one of the few favorable signs around. It should be enough to make 1961 a record year as far as construction is concerned.

• Stock market—Backing and filling here reflect continued Wall Street uncertainty.

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Changes in Metals Help Keep Price Pot Boiling

Union Carbide refused to go

• Diesel fuel, kerosene and heating oils. Continental Oil Co. raised tankwagon prices on these items ½ ¢ gal. in six Rocky 1/2¢ gal. Mountain states.

• Stainless steel. Allegheny Ludlum and U.S. Steel followed Crucible Steel in making a 10% price reduction on type 422 stainless.

• Camphor. Foreign producers of natural camphor lowered their prices to 48¢ and 49¢ (according to quantity).

• Methylene chloride. Dow Chemical cut prices 1¢ across the board.

• Electrical equipment. General Electric revised prices both up and down on several lines, including large induction motors. synchronous motors and generators, and low-voltage switchgear.

• Polyester resins. Commercial Resins Corp., St. Paul, cut prices of orthophthalic and isophthalic 5¢/lb.

Poor demand was behind the zinc price decline. In the year just ended, deliveries to domestic consumers slipped to 743,018 tons—15% below 1959 and the lowest level in 13 years

St. Joseph Lead Company, which started the recent competitive infighting by announcing 1/2 ¢/lb. discount "to meet widespread discounts being offered zinc consumers by com-petitors," decided to go along with the new lower price. From now on, the company announced will make zinc sales on a flat 111/2 ¢/lb. East St. Louis basis.

The new carlot price of zinc dust was 15½ ¢/lb. for the pigment grade. One leading producer of die cast alloys also went along with the zinc decline. His prices were cut 3/4 ¢/lb., bringing the no. 3 alloy down to $14\frac{1}{4}\frac{6}{7}$ lb. and the no. 5 and 7 alloys to 141/2 e/lb.

The 1¢/lb. drop to 29¢/lb. in custom smelter copper tags stemmed from a combination of domestic demand and drop in the London quotation. For example, the London price slumped more than ½ ¢/lb. on news of the settlement of the labor dispute at Braden Copper's big Chilean mine.

No Major Drop Seen

A spot check of producers indicated that no immediate drop is contemplated in their price of 30¢/lb. However, many fabricators still think market conditions will force all copper prices down to 28¢/lb. before mid-year.

Conoco's boost of prices on diesel fuel, kerosene and heating oils was the hike which the company said it would have to make to absorb a 5% wage increase which went into effect at the end of the year. It is the first attempt to in-

crease prices in the Rocky Mountain area. East Coast mar-Rocky keters raised their prices last week (see PW, Jan. 9, '61, p.3).

K. W. Brill, Conoco vice president and general manager of the Rocky Mountain region, said the

wage cost increases 'cannot be polyethylene but canceled when absorbed from present low profit primarily in missile cleaning op-union Carbide refused to go margins which for some time erations, for manufacturing phohave been on a downward trend.'

Conoco had no immediate plans to follow with a gasoline increase, apparently wanting to see whether the current hikes will hold.

Allegheny Ludlum's slash of stainless tags was a competitive move to match Crucible. Competition in this area has been keen, with many smaller mills competing against the giants for the available orders.

New Turn in Battle

The see-saw price battle between foreign producers of natucamphor and the U.S. maker of synthetic took a new turn when tags on the natural product went down. The week before, Clintbrook Chemical Co. had made its second reduction in the price of synthetic expressly to counteract the dropping to counteract the dropping foreign tags. This brought the price from 57¢ to 52¢/lb. (in 2,000-lb. lots), following an October reduction of 2¢/lb. from 59¢.

Dow Chemical's new prices for methylene chloride were set at: $11\frac{14}{4}$ by the tank load; $11\frac{12}{4}$ by tank transport; $12\frac{12}{2}$ by truck and car load, and $15\frac{34}{4}$ by the tank load; $11\frac{12}{4}$ by truck and car load, and $15\frac{34}{4}$ by the tank load.

Methylene chloride tographic film and as dient in non-inflammable paint It also is a major removers. component in aerosol propellant systems.

Dow said the price cut was made to encourage more developmental research to find new uses for the product and thus to expand its overall market.

Fitting Prices to Market

General Electric's price changes on electrical equipment were in line with GE's policy of fitting tags to market conditions.

In the switchgear area, revisions covered Type AK low-voltage power circuit breakers, LB-1 fuseable power protectors and assembled drawout equipment. GE spokesmen said the revisions would probably result in a price reduction averaging about 15%. In the large induction motor

area, changes ranged from in-creases of 6% to decreases of 20%

Commercial Resins Corp.' new prices in the orthophthalic polyester resin category were: 26¢/lb. in bulk, 28¢ in 40-drum truckloads and 29½¢ in one-to-nine drum lots. For isophthalic: 27¢ in bulk, 29¢ in 40-drum truckloads and 30½¢ in one-to-

AMA Purchasing Group Expected To Make Debut Early in February

dents.

The move to give purchasing equal status with AMA's 10 other divisions was launched last September at a meeting attended by Harold M. Berry, vice presi-dent, Rock Island Railroad; dent, Rock Island Railroad; David S. Gibson, vice president, David S. Gibson, vice president, Worthington Corp.; Harvey C. Hopkins, V. P., ACF Industries, and Andrew M. Kennedy, Westinghouse vice president. Representing AMA was Manufacturing Div. Director Daniel S. Cady

AMA has already scheduled 13 purchasing seminars totaling some 58 days of professional training for the first half of 1961. range from evening programs beginning Jan. 19 on developing a company purchasing manual (under the direction of PW consultant F. Albert Hayes) to a week-long session on integrated materials management at the AMA academy, Saranac Lake, N. Y.

Also reported underway are special filmed seminars that will be available to P. A.'s who can't attend AMA meetings in major cities. These films will present the best thinking of purchasing experts and other managers at AMA seminars.

In another professional deaction, velopment \$600,000 development program has gone out to regional officers consideration. The NAPA executive committee is expected to vote on the program at March meeting, and the member-ship will be asked for their stamp of approval at the Chicago convention in June.

Local associations also are going ahead with their professional programs, too. The

(Continued from page 1)
agers, directors and vice presidents.

Purchasing Agents Assn. of Washington, D.C., starts a research and education program on materials management at its Jan. meeting.

And the Los Angeles Assn. has scheduled Dean M. M. Hargrove of the University of Tulsa as a speaker at its January meeting. He will discuss the role of education in attaining a high level of professional status. Hargrove professional status. Hargrove has been a key figure in the workshops held by the Tulsa Purchasing Agents Assn.

Purchasing Perspective

(Continued from page 1) tion manager in 1946 and advanced as the firm expanded. "I have always considered purchasing as one of the best profitmaking departments" at McCulloch, Egbert told PURCHASING

An early advocate of strong technical background for buyers, Egbert restaffed McCulloch's purchasing department with industrial engineers. Every three months, purchasing personnel were required to spend two weeks in the shop working with the products on which they had written purchase orders.

As McCulloch expanded its product lines, Egbert kept purchasing at the top management level. In each McCulloch division, purchasing joins with sales, manufacturing, engineering, accounting and other mainline departments in weekly meetings with the divisional V-P. Key divisional P.A.'s also meet for once-a-month sessions.

Emphasis on adequate communications was continuous. As McCulloch added divisions, interdivision buying decisions posed major paperwork problems. These were solved to a great extent by development of standard formulas, covering various product categories, so that McCulloch P.A.'s can determine at a glance at what price and under what conditions purchases should be made externally or internally.

The automotive leasing industry is more confident than ever of its future. Its leaders believe that within a few years virtually all industrial fleets now company-owned will be operated under leasing plans. They cite these figures:

By 1965, autos in leased fleets will increase from the present 270,000 to nearly 500,000. Trucks leased by industrial and commercial firms will total nearly 1-million compared to the 290,000 leased today. The projections are based in part on a 14.5% gain recorded for the automotive leasing industry during 1960.

Another leasing industry note: Most vehicles are leased under maintenance plans, but the number of cars and trucks leased under no maintenance or service features increased markedly last year.

Steel warehouses throughout the country are reverting to the total order pricing system that Midwestern service centers began putting into effect on hot rolled products several weeks ago.

The now-abandoned item quantity extras system, which began replacing the total order system in May, 1959, never did win complete support from warehousemen or their customers because of its complexity. However, service center operators in some areas are disappointed it failed to hold because the item extra system represented a major attempt to set up a pricing system that accurately reflected order handling costs.

Price Changes for Purchasing Agents

| Item & Company | Amount of Change | Nese Price | Reason |
|---|------------------|------------------|--------------------------------|
| NCREASES | | | |
| Gum turpentine, So., gal | .0025 | .4725 | short supply |
| erators, GE | to 6% .025 | .30 | price revision cost squeeze |
| states, gal | .005 | | incr. labor costs |
| REDUCTIONS | | | |
| Methylene chloride, Dow, trcklds., lb | .01 | .125 | to expand market |
| ment, GE Fixed glass capacitors, (CYF line), fusion-sealed, | 15% av | ge | price revision |
| Corning Large induction motors, synchronous motors & gen- | 10% | * * * * | prod. econs. |
| erators, GE Polyester resins, Commercial Resins, orthophthalic, | to 20% | | price revision |
| bulk, lb | .05 | .26 | competition |
| isophthalic resin, bulk. lb | .05 | .27 | competition |
| Camphor, nat., pwd., lb | .02 | .48 | competition |
| Packaging film, (pliofilm), Goodyear, 500 lb. min. lb | 10% | .90915 | prod. econs. |
| Zinc dust, pigment grade, carlots, lb | .005 | .155 | metal cuts |
| Copper, electrolytic, smelters, lb | .01 | .29 | slow demand |
| Brucine, Alkaloid, oz | .30 | \$1.40 \$1.15 | competition |
| Tin salts, potassium stannate, lb | .004 | .776 | competition metal ease |
| sodium stannate, lb. | .005 | .633 | metal ease |
| Tin crystals, annhyd, lb | .005 | .995 | metal ease |

Washington Sleuths Track Down Price Fixers

(Continued from page 1) er's group into pricing practices. The report will be primarily a compilation of tables, but it is expected it will show patterns of possible identical bidding in a wide range of products—a list of which covers five pages--including such basic commodities as steel, aluminum, cement, paint, clothing, gypsum, machine tools, batteries, and bushings.

The report will include bids submitted to the defense agency in response to invitations from Jan. 1, 1958, through June 30, 1959, and amounting to \$25,000 or more in "important" indus-

Sen. Kefauver's subcommittee has not yet decided what other projects it will undertake during this session of Congress, but a couple of matters remain on its unfinished business list. It's probable that the subcommittee's hearings on drug prices will be resumed so senators can hear some doctors' ideas on the subject. Kefauver already has started consideration of possible legislation which he may introduce aimed at bringing drug prices

To Re-Open Shipping Hearings

In the House, Rep. Emanuel Celler's Antitrust Subcommittee next month will re-open hearings in its investigation of shipping The subcommittee has been interested in the so-called dual rate system which was struck down by the U. S. Supreme Court in 1958. Legislation on shipping rates is likely this year because interim legislation passed after the Supreme Court decision, allowing continuation of the dual rate system, expires June 30.

Celler is expected later in the session to hold hearings on pre-

Triple Damages

Think you may be able to sue for treble damages? Here are some basic ground rules:

1. Your own purchase dur-ing the time of price fixing must be established.

2. You must convince a

judge—or jury—of how much damages were. You can speculate on damages-almost pull a figure out of a hat-as long as you can convince the judge

or jury that you're right.
3. Statistics will help. Cost of living charts, manufacturing costs, labor rates will help you convince a jury you paid X dollars more than you would have paid had there been no price fixing.

4. Under the "wrongdoer's rule" of judicial precedence, the defendant has the job of proving your figures are wrong not the other way around.

5. Appeals courts seldom reverse, damage awards by iuries.

merger notification legislation, a perennial bill in the House and a favorite subject of the Brooklyn congressman. Such legislation would require large companies to inform the government of merger plans.

A two-year study on conflict of interest within government also may get some attention by the House subcommittee. It recommends revision of laws dealing submitted.

with bribery and conflict of inter- adelphia federal court could add est cases in government.

In the Dept. of Justice and the Federal Trade Commission, 1961 could mean stepped-up activity in the areas of identical bidding and discriminatory pricing. Associates of Robert F. Kennedy, the Attorney General-designate, characterize him as a hard-working boss who will try to increase the tempo of investigations in all Justice Dept. divisions, including antitrust. The government's recent success in nailing down price fixing charges against electrical manufacturing companies in Phil-

Government Sounds Out Its Own P.A.'s for Data On Prices and Collusion

(Continued from page 1) mained silent for so long in the electrical field may have done themselves a disservice. We have indications that the managements of utilities are burned up that their P.A.'s didn't keep this affair at a lower level. Now top man-agement has the messy job of strightening out possible damages before that whole business winds

up in court, too.

"Sure, we get plenty of unfounded complaints about prices. Meanwhile from another direction, we get complaints that we don't press for tough enough punishments for offenders. But remember this: Our job is justice, not convictions.

Check the Books

"In that spirit, we suggest that P.A.'s go back over their books regularly to see if any 'red price flags' show up—that is, price patterns that look suspicious. If they get uneasy, they can talk to the Antitrust Division and at least have the reward of knowing that the matter is off their chest and in competent legal hands. For that purpose we have field offices in Chicago, Cleveland, Los Angeles, New York, Philadelphia, and San Francisco. (Editor's note: Some of the more common 'red flags' described by the Justice Dept. attorneys are listed in the box on page 1.).

No One Type Prone

"No one type of business is more-or-less prone to price col-lusion than another. There isn't any pattern. The best thing a conscientious P.A. should remember is that his first loyalty is to his company and its customers —not the supplier or his sales-men. With that in mind, he should check his records regularly.
As for state and local govern-

ment P.A.'s we suggest they issue periodical reports to state attorneys general and county solicitors or city controllers on suspected rigged bids. Bidding patterns often are a good tipoff, though all may not be so ridiculously obvious as this one:

"A P.A. sometime ago innocently started reading off the prices quoted by several bidders. When a competitor of the firm whose bid was being read heard the price, he indignantly shot up from he seat and questioned the accuracy of the P.A's reading— in fact, he supplied the figure that his alleged adversary actually had steam to an anti-price fixing

The Federal Trade Commission could assume a more important role in anti-monopoly law under the Democrats. This de ends on the man President-elect Kennedy picks for FTC chairman, but many Washington Democrats believe the commission' power to attack monopoly has not been utilized properly in recent years. A Democratic-dominated FTC could also be more active in pressing complaints under the Robinson-Patman Law which bars discriminatory pricing practices. This statute applies mainly in the wholesale and retails fields. although industrial consumers and sellers are sometimes charged with discriminatory pricing prac-

No Honeymoon

The new stress on prices does n't mean, of course, that merging companies will have a honey-moon away from the scrutiny of antitrust sleuths. Indeed, businessmen probably never have been more knowledgeable about merger laws-or warier of them -because of the high pitch of anti-merger activity in recent

Most corporate lawyers now advise their clients who have merger in mind to first go to the Justice Dept. and get a reading on whether trustbusters would complain if the transaction were brought about.

Corporate lawyers also are becorporate lawyers also are be-ginning to keep eagle eyes on price-fixing and the possibility of recovering triple damages under the law. The accompanying box shows some of the basic ground rules for recovery of damages.

California Plans to File Suits for Triple Damages Against Electrical Firms

San Francisco—California will file suit for triple damages against several manufacturers of heavy electrical equipment within 60 to 90 days, according to Attorney General Stanley Mosk.

Mosk did not name the com-panies or the total figure that will be sought. However, the city of San Francisco alone estimates it has lost up to \$1.5-million since 1951 as a result of price fixing by big suppliers.

Mosk indicated that the state probably would bring civil suit for damages in Federal Court, basing complaint directly on the guilty pleas rendered under the earlier Federal prosecution in Philadelphia.

A second course open to the state would be to bring fresh criminal or civil charges within the California court system under the state's Cartwright, or "Little Sherman" Act. "We are not inclined to bring criminal action, Mosk said.

Indications were that other states with their antitrust laws might follow California's lead. Last week, the State of Washington announced it was considering legal action to recover "millions of dollars" from some of the electrical corporations which pleaded guilty or delphia. "no contest" in Phila-

Late News in Brief

Coal Operators File \$30-Million Suit

Chattanooga—Sixteen small coal companies have filed a \$30-million antitrust suit against the United Mine Workers, Tennessee Valley Authority, Louisville & Nashville Railroad and industrialist Cyrus Eaton. The suit contends that the defendants conspired to control the production and price of all coal in the Southern Appalachians.

Goodyear Cuts Price of Pliofilm

Akron-Goodyear Tire & Rubber Co. has cut the price of flexible packaging film used in wrapping baked goods 10%. The cut drops the price of Pliofilm 65 BG to 90¢/lb. from \$1/lb. in all but seven Western states. In these states the price has been reduced from \$1.01½ to 91½ e/lb.

A. B. Dick Fined \$7,000

Washington-A. B. Dick Co. has been fined \$7,000 in Cleveland Federal Court for violating a 1948 consent decree charging the firm with attempting to monopolize the duplication machine industry. The company pleaded "no contest" to the criminal charges. It had earlier made the same plea on similar civil charges.

N. Y. Tug Strike Delays Shipments

New York—Freight shipments in and out of New York were delayed last week as a result of the labor dispute of marine crews against 11 railroads. The strike halted water movement of food, fuel, and a wide range of general cargo. Railroads placed a partial embargo on New York-bound freight, including foreign commerce after teamsters, longshoremen, and other unions honored picket lines of the striking tug and ferry crews.

New Competition Hits Embattled Steel At Engineering Exposition in Detroit

(Continued from page 1) less than zinc. Magnesium can bumpers, wheels, radiators and rear axle housings, as well as an of aluminum, and offers a 10increase in the crop of aluminum engines. Alcoa predicts that by 1965 the average car will require at least 115 lb. of aluminum (about double today's usage) and by 1970, 300 lb. per car would

not be extraordinary.
And from the American Zinc Institute came word that the 1961 full-size passenger models are using 15% more zinc die castings than the 1960 models. This was AZI's first appearance at the SAE show.

Chrome-plated zinc die castings are used for such parts as radiator grills, door handles, rear view mirrors, headlight and taillight housings, as well as much exterior trim. Biggest impetus to the trend to more zinc is expected to come from New Jersey Zinc Co.'s new alloy, Zamak 7. One of the advantages of this alloy is that castings now can be made with thinner walls than was hitherto possible. This should prove to be of great assistance to zinc in its competitive battle with aluminum, which can stamped into thin sections.

Magnesium, which is making inroads as an aluminum and zinc substitute in diecast parts, at-tracted more than its share of attention. One display showed magnesium instrument cluster housing being used this year in the Lancer. And from Chevrolet comes word that 25% of production, according to an evaluation program, now is equipped with instrument cluster housings made of magnesium. Thus, for the first time, a significant amount of the material has appeared in domestic automotive production.

Even though magnesium prices are flexible due to excess ca-pacity, it is generally assumed magnesium casting alloy is 40% cheaper than an equivalent instant quantity of aluminum and 51.7% truck.

fold longer tool life.

Competing for attention with aluminum, zinc, and magnesium, as well as stamped steel assem-blies, were the new thermoplastics such as DuPont's Delrin and Dow's ABS resin. (Buick re-cently switched to Dow's Styron 440 for the instrument cluster retainer plate, and Valiant uses Delrin for the housing.) U.S. Rubber Co. announced

that it is producing a high-impact plastic cluster dashboard instrument for the 1961 Buick Special. The cluster, made of U.S. Rubber's Kralastic, weighs 2.3 lb, or about one-fifth as much as a similar zinc die-cast panel. It will be wired with a printed circuit rather than the standard wiring used with metal dashboards.

A plastic advantage is im-pregnated colors, saving a painting operation, but this is some-what offset by the higher higher

inventories required.

Minnesota Mining & Mfg. Co. featured new epoxy adhesives that could lead to automotive doors made of honeycomb sand-These new wich construction. adhesives are already used in the industry as a weld substitute, and could replace solder in the

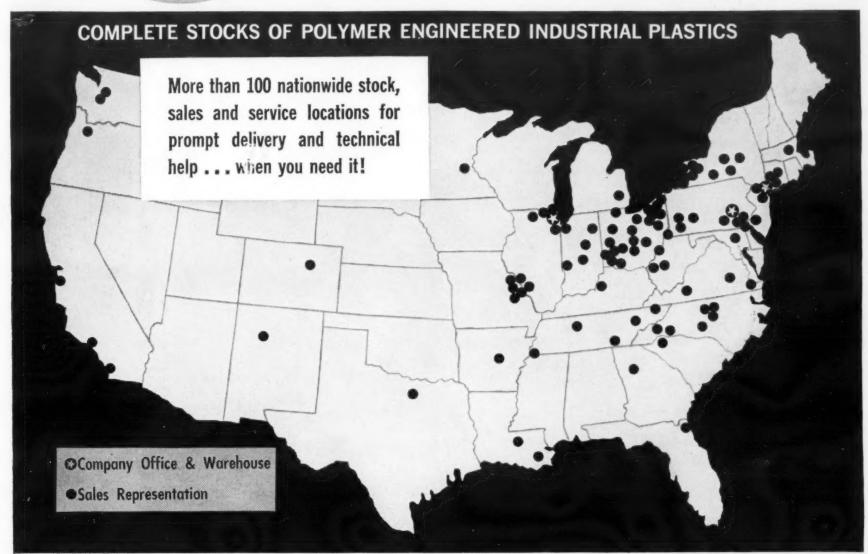
construction of radiators.

Stainless steel was much in evidence, with Allegheny-Lud-lum showing a Thunderbird car built almost entirely of the man built almost entirely of the material. Another stainless display featured a car that boasted 370,000 corrosion free miles.

The world of tomorrow theme was evident in a number of displays which hinted that someday steel cars may be glued together or that Detroit would do well to consider a fiberglass station wagon that could be converted instantly into a panel or pickup



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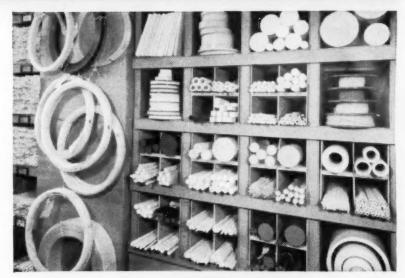
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